

FOUNDED 1855

RAILWAY AGE

THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

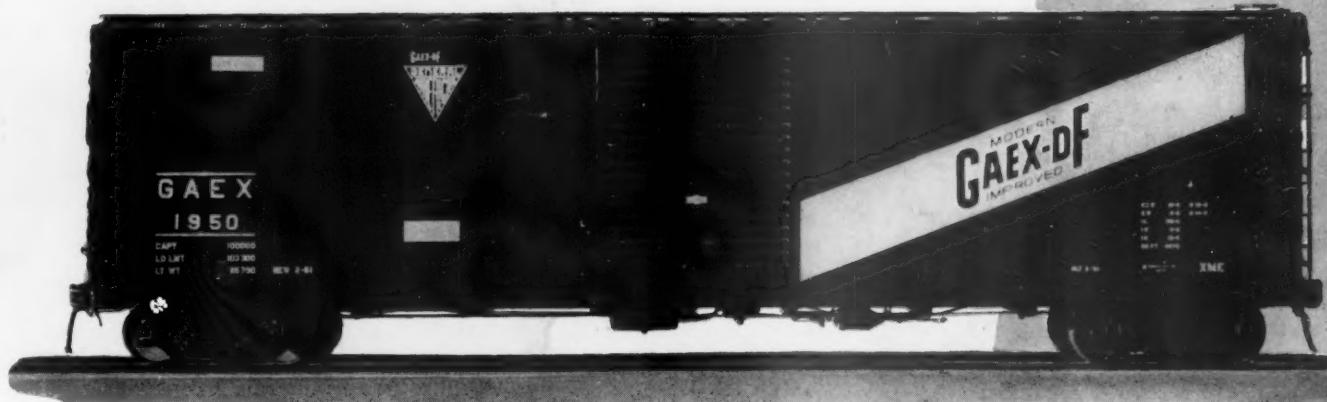
FREIGHT TRAFFIC ISSUE

SEPTEMBER 26, 1951

YOUNGSTOWN *Doors*

FOR MODERN "DAMAGE FREE" BOX CARS

8
Copy
10
26
51



Youngstown steel doors, the standard door for American and Canadian railroads, have been selected as standard equipment for these revolutionary, new, "Damage Free" cars, thereby assuring complete weather protection to the lading.

MODERN CARS USE MODERN DEVICES

YOUNGSTOWN STEEL DOOR COMPANY

Camel Sales Company
Cleveland Chicago

Camel Company Limited
New York Youngstown

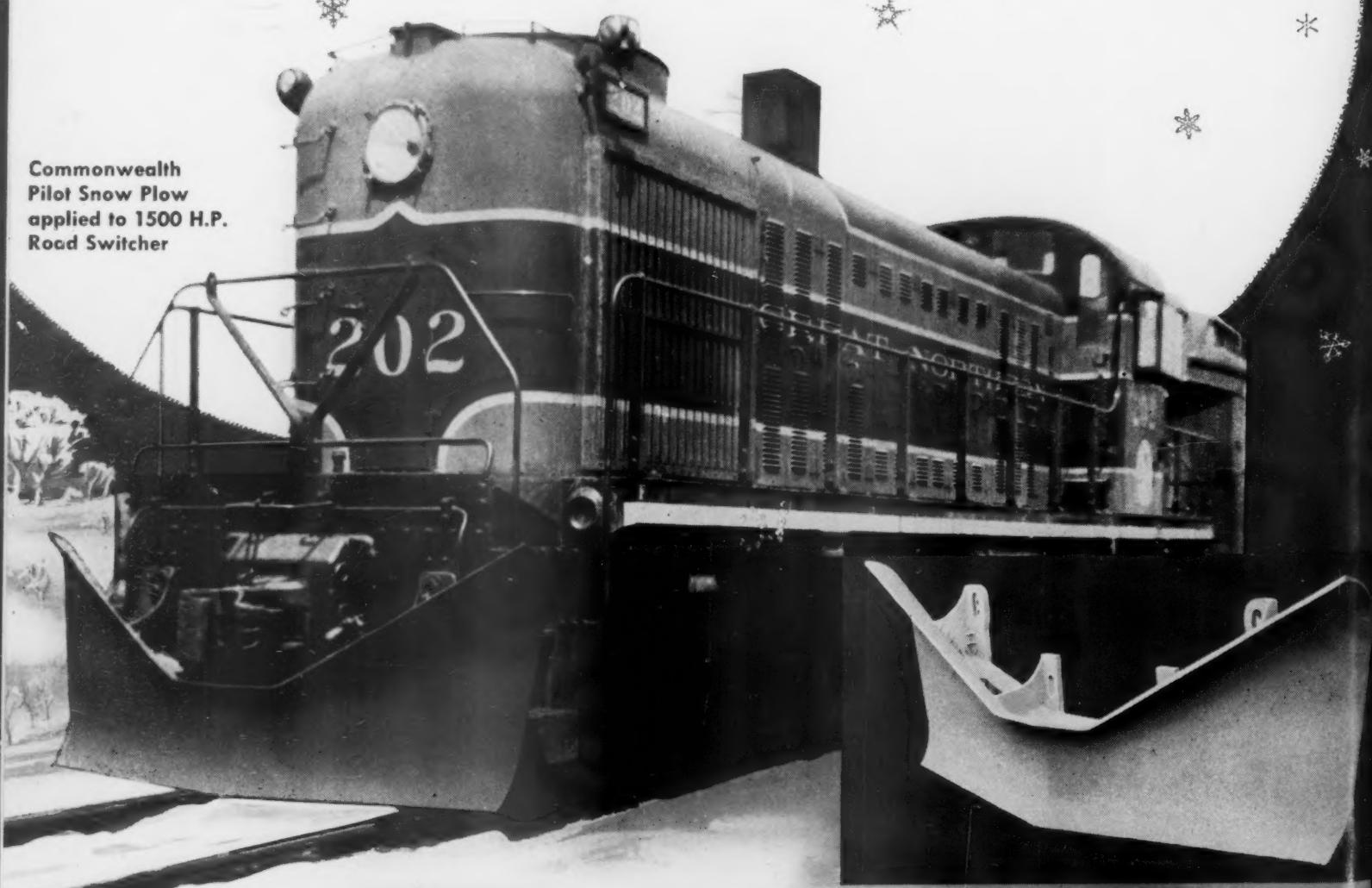
WINTER SNOW FLIES... Prepared With COMMONWEALTH PILOT SNOW PLOWS

COMMONWEALTH One-Piece Pilot Snow Plows applied to diesel switchers and road switchers have proved of great value in keeping rails clear of drifting snow without the costly repeated use of large snow plow equipment.

These rugged cast steel pilot plows can be easily applied, removed and reapplied. Also, as a permanent application, they help solve year round operating problems by serving as strong deflecting pilots which clear the way of objects, substantially reducing the possibility of accidents or derailments. They have provision for ample adjustment to the desired height above the rail and may be used without interference with normal coupling operations.

Act now to reduce your next winter's operating costs with **COMMONWEALTH** One-Piece Cast Steel Pilot Snow Plows.

Commonwealth
Pilot Snow Plow
applied to 1500 H.P.
Road Switcher



Commonwealth Cast Steel Pilot Snow Plow



GENERAL STEEL CASTINGS
GRANITE CITY, ILL. EDDYSTONE, PA.

TFI
R2

486

58

WH. MINER, INC.
CLASS C-4-S
TRUCK SPRING
SNUBBER
PATENTED

QUALITY

MINER Truck Spring Snubber
CLASS C-4-S

SAFE GUARDS LADING

W. MINER, INC. CHICAGO



One of 36 railroads using P-A-X

business
telephone
systems



PAX automatic telephones provide quick telephone service within your organization.

PAX is owned by the user. It has no connection with city telephone facilities.

PAX keeps city telephones free for outside calls—improves service to customers.

PAX reduces costs of local and long-distance telephone service.

PAX gives you control of your organization and coordinates all departments.

PAX cuts costs by saving time and steps and preventing errors.

P-A-X reaches anyone, anytime, anywhere, in this Missouri Pacific car shop!

Like many other car shops, the Missouri Pacific's DeSoto works, for building and repairing freight cars and cabooses, consists of several buildings that cover a large area. But P-A-X knits them all together—with fast, automatic telephone service to coordinate operations.

P-A-X even solves the tricky problem officials have in trying to reach foremen who are always on the move.

"Code-Call", a special service valuable to railroads, provides bells, whistles or horns, easily heard above shop noise; they sound a personalized code throughout the shop area and the foreman answers from the nearest P-A-X telephone for a private, easily heard conversation.

This is but one of the Missouri Pacific's several P-A-X's, the first of which was installed in 1923.

You, too, can coordinate your operations, make work smoother with P-A-X. Fast and convenient, P-A-X builds teamwork between departments—in car shops, yards or offices. Install a P-A-X Business Telephone System in each of these locations for the finest local communication. Link them with your own lines into one, company-wide network and you'll extend the efficiency of P-A-X throughout your system. Let us show you all its advantages —write:

AUTOMATIC ELECTRIC SALES CORPORATION
1033 W. Van Buren St., Chicago 7, Ill.
Offices in principal cities



P-A-X business
telephone
systems

AUTOMATIC ELECTRIC

RAILWAY AGE

With which are incorporated the Railway Review, the Railroad Gazette, and the Railway-Age Gazette. Name Registered in U. S. Patent Office and Trade Mark Office in Canada.



Simmons-Boardman Publishing Corporation:
 James G. Lyne, President. Samuel O. Dunn, Chairman Emeritus. J. S. Crane, Vice-President and Secretary. C. Miles Burpee, Harry H. Melville, C. W. Merriken, John R. Thompson, William H. Schmidt, Jr., Vice-Presidents. Robert G. Lewis, Assistant to President. Arthur J. McGinnis, Treasurer. Ralph E. Westerman, Assistant Treasurer.

EDITOR	James G. Lyne
EDITORIAL CONSULTANT	Samuel O. Dunn
MANAGING EDITOR	C. B. Tavenner
WESTERN EDITOR.....	William H. Schmidt, Jr.
NEWS & FINANCIAL EDITOR	Gardner C. Hudson
WASHINGTON OFFICE ...	
Walter J. Taft	Joe W. Kizzia
TRAFFIC & TRANSPORTATION DEPARTMENT	
Robert G. Lewis	John W. Milliken
John S. Gallagher, Jr.	
MECHANICAL DEPARTMENT ...	
C. B. Peck	E. L. Woodward
H. C. Wilcox	C. L. Combes
G. J. Weihofen	
ELECTRICAL DEPARTMENT	Alfred G. Oehler
ENGINEERING DEPARTMENT	
M. H. Dick	Henry E. Michael
Norris V. Engman	Radford E. Dove
PURCHASES & EQUIPMENT	Fred C. Miles
SIGNALING &	
COMMUNICATIONS DEPARTMENT ..	John H. Dunn
WESTERN NEWS DEPARTMENT ...	Arthur M. Cox, Jr.
ASSOCIATE EDITOR	Charles Layng
LIBRARIAN	Edith C. Stone
EDITORIAL ASSISTANT	Elaine C. Farrar

Published weekly by the Simmons-Boardman Publishing Corporation at Orange, Conn., and entered as second class matter at Orange, Conn., price, \$3.00 a year to railroad employees only in U. S., U. S. possessions and Canada, payable in advance and postage free. Subscription price to railroad employees elsewhere in the Western Hemisphere, \$10.00 a year; in other countries, \$15.00 a year. Two-year subscriptions double the one-year rate. Single copies 50¢, except special issues \$1. Address Robert G. Lewis, Assistant to President, 30 Church Street, New York 7.

Editorial and Executive Offices at 30 Church Street, New York 7, N. Y., and 79 West Monroe Street, Chicago 3, Ill. Washington 4, D. C.: 1081 National Press Building—Cleveland 13: Terminal Tower—Portland 5, Ore.: Terminal Sales Building—Los Angeles 17: 1127 Wilshire Boulevard—San Francisco 4: 1204 Russ Building—Dallas 4: 2909 Maple Avenue.

IN THIS ISSUE

EDITORIAL COMMENT:

The Public Must Be Shown How Rate Regulation Has Failed	35
Pooling of L. C. L.	36

FREIGHT TRAFFIC ARTICLES:

Commissioner Alldredge Says Common Sensa Supports Law's Call for Simplified Tariffs, by J. Haden Alldredge	42
The Milwaukee Plants a Crop of Future Traffic	44
How Rock Island Cutoff Speeds Transcontinental Traffic	47
Radio Expedites Freight on the Green Bay & Western	50
Griffin Plan Steers L. C. L. to "On the Ball" Roads	52
The Development and Growth of the Kansas City Southern	55

GENERAL ARTICLES:

How the Texas & Pacific Uses Steam Generator Cars	59
Need High-Calcium Limestone? "Plenty Along Our Line," Says the B. & O.	61
Joseph A. Fisher New Reading Company Head	62

NEWS FEATURES:

Baxter Heads Tariff Study Group	37
Fast Write-offs Banned by I. C. C.	38
New Services and Publications of Interest to Shippers	38
I. C. C. Approves Bulwinkle Pact of Illinois Railroads	41

DEPARTMENTS:

News of the Railroad World	37
Communications	68
Freight Operating Statistics	100

Published by SIMMONS-BOARDMAN PUBLISHING CORPORATION, New York 7

Railway Age Railway Mechanical & Electrical Engineer Railway Engineering & Maintenance
 Railway Signaling & Communications Car Builders' Cyclopedias Locomotive Cyclopedias
 Railway Engineering & Maintenance Cyclopedias American Builder
 Marine Engineering & Shipping Review Marine Catalog & Buyers' Directory
 Books covering transportation and building

Railway Age is a member of Associated Business Publications (A. B. P.) and Audit Bureau of Circulation (A. B. C.) and is indexed by the Industrial Arts Index and by the Engineering Index Service. Printed in U. S. A.

AT HOME ON THE RAILROAD

"UNION" I.T.C.!

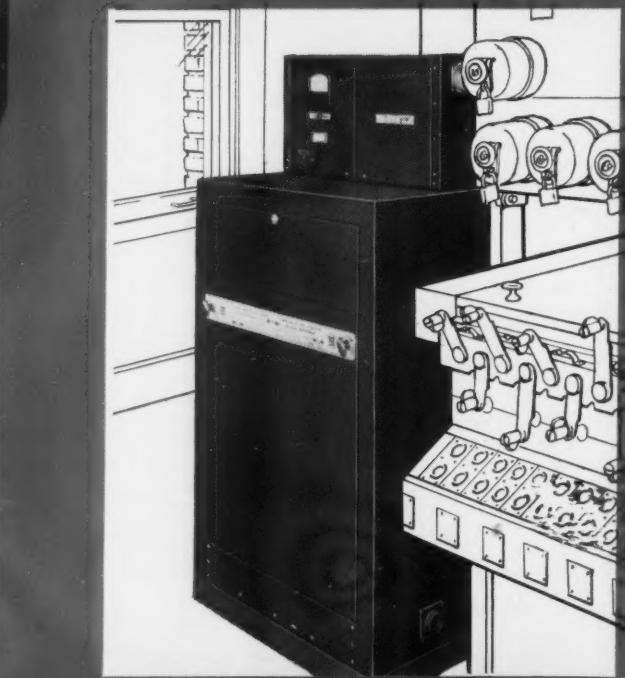
Wayside apparatus includes means
for connecting recording apparatus.



The operating success of train communication depends largely upon those special features which make the system particularly adaptable to railroad service. And, "Union" Inductive Train Communication was designed with this in mind.

The wayside apparatus is an example. It consists of the usual necessary facilities . . . including two receivers and two loudspeakers with the two-frequency system. But in addition, it has extra features which "belong" in a wayside office, such as key-controlled circuits in the control station to permit: the use of the operator's regular desk set for normal communication with trains and the connection of an accessory handset for special purposes such as maintenance testing; and jacks for patching either receiver into the dispatcher's line.

Our representatives can tell you about other important features of "Union" I.T.C., too, including the use of plug-in components throughout the system, and means for connecting recording apparatus at wayside offices. For full particulars, call or write any of our district offices.



UNION SWITCH & SIGNAL

DIVISION OF WESTINGHOUSE AIR BRAKE CO.

SWISSVALE



PENNSYLVANIA

NEW YORK

ST. LOUIS

CHICAGO

SAN FRANCISCO

WEEK AT A GLANCE

CURRENT RAILWAY STATISTICS

Operating revenues, six months	
1951	\$ 5,035,876,498
1950	4,223,707,275
Operating expenses, six months	
1951	\$ 3,975,306,446
1950	3,354,141,920
Taxes, six months	
1951	\$ 570,919,760
1950	434,899,975
Net railway operating income, six months	
1951	\$ 388,044,695
1950	346,295,612
Net income, estimated, six months	
1951	\$ 250,000,000
1950	209,000,000
Average price railroad stocks	
August 28, 1951	52.50
August 29, 1950	46.35
Car loadings, revenue freight	
33 weeks, 1951	25,361,667
33 weeks, 1950	23,439,531
Average daily freight car surplus	
Week ended August 25, 1951	4,354
Week ended August 26, 1950	4,371
Average daily freight car shortage	
Week ended August 25, 1951	17,852
Week ended August 26, 1950	39,477
Freight cars delivered	
July 1951	5,290
July 1950	3,464
Freight cars on order	
August 1, 1951	144,810
August 1, 1950	67,084
Freight cars held for repairs	
August 1, 1951	101,001
August 1, 1950	129,097
Average number railroad employees	
Mid-July 1951	1,294,525
Mid-July 1950	1,247,987
Net Ton-Miles per Serviceable Car per Day	
June 1951 (preliminary)	1,035
June 1950	997

In This Issue . . .

GRiffin PLAN: J. B. Griffin, superintendent of traffic for the Scovill Manufacturing Company of Waterbury, Conn., is the author of a plan for better L. C. L. service which bears his name, and which is the subject of a feature article and of an editorial in this issue. Mr. Griffin, a former railroader, is chairman of the L. C. L. committee of the New England Shippers Advisory Board, as well as a member of the traffic committees of the Waterbury Chamber of Commerce, the Naugatuck Valley Industrial Council and the Copper & Brass Research Association.

DOING THE JOB: Like almost any large-scale enterprise better railroad freight service can come only as the sum total of many efforts in many different directions by many different carriers. Some of those efforts are reported in this issue—How the Green Bay & Western uses radio to speed freight movement (page 50); how the Rock Island has expedited its share of transcontinental freight through Denver by spending over \$2 million on a new cut-off line (page 47); how the Milwaukee helps timber-using industries by modern tree farming (page 44); how the B. & O. promotes use of one of its territory's natural resources (page 61); how the Kansas City Southern has "lifted itself by its bootstraps" (page 55). And in the news section, a considerable list of new railroad services and publications of special interest to shippers.

WANT TO SWAP? In this issue's Classified Ad columns is an offer to trade a photo studio, camera store and real estate for a short line railroad. We'd like some suggestions from readers as to which is the frying pan and which is the fire!

IN THE NEWS SPOTLIGHT: Dahill heads committee to find substitute loading and bracing materials for military shipments.—Canadian roads file rate equalization plans.—Erie takes another step toward complete dieselization, by authorizing purchase of 13 additional units.—Pennsylvania's freight car rehabilitation program 90 per cent complete.—National Malleable to build new physical testing laboratory for railway engineering development work.—Northern Pacific's 11-year track program nears completion.—Reading announces major changes in traffic department, with Harry B. Light becoming vice-president.

\$100,000 A YEAR FOR BETTER TARIFFS: The special tariff simplification committee being established by the railroads under the chairmanship of Charles S. Baxter will have an annual budget of \$100,000. This is revealed, publicly, we believe, for the first time, in a letter from Mr. Baxter to I. C. Commissioner J. Haden Alldredge, which is quoted in full in Commissioner Alldredge's article on page 42. Another member of



WEEK AT A GLANCE

the new group is George W. Lupton, Jr. Further details concerning the new organization, as announced by the P. R. R.'s Fred Carpi, are included in the news columns.

In Washington . . .

THE EVIDENCE MOUNTS UP: "The ability of motor carriers to take freight traffic from the railroads by reason of lower rates has been and is due largely or entirely to inequality of treatment accorded rail and motor carriers. . . . Railroads provide and maintain at their own expense, and pay taxes on, their respective rights of way and trackage. Competing motor carriers do not operate on either that basis or a comparable basis. . . . There is no showing that any substantial part of the highway fund is paid by motor carriers of freight for hire."—*From a proposed report on intrastate rail rates in Louisiana, by I.C.C. Examiner Claude A. Rice.* (See news pages for further details.)

NO FAST WRITE-OFFS: There won't be any in railroad reports to the I. C. C.—except for facilities which "will have no use in transportation service after the emergency"—under a commission ruling made public August 24, the gist of which is summarized in the news pages. Interested parties may file written presentations with respect to the matter by September 27; such presentations will undoubtedly be forthcoming, in view of railway accounting officers' reportedly "overwhelming" opposition to the commission ruling.

PENSION PROSPECTS: A majority report favoring a 15 per cent increase in railroad retirement pensions and a 33 1/3 per cent boost in survivor benefits, is due to be filed by the House Interstate and Foreign Commerce Committee soon after the House reconvenes September 12. Representative Crosser, Democrat of Ohio and chairman of the committee, is among those disagreeing with the report.



Harris & Ewing

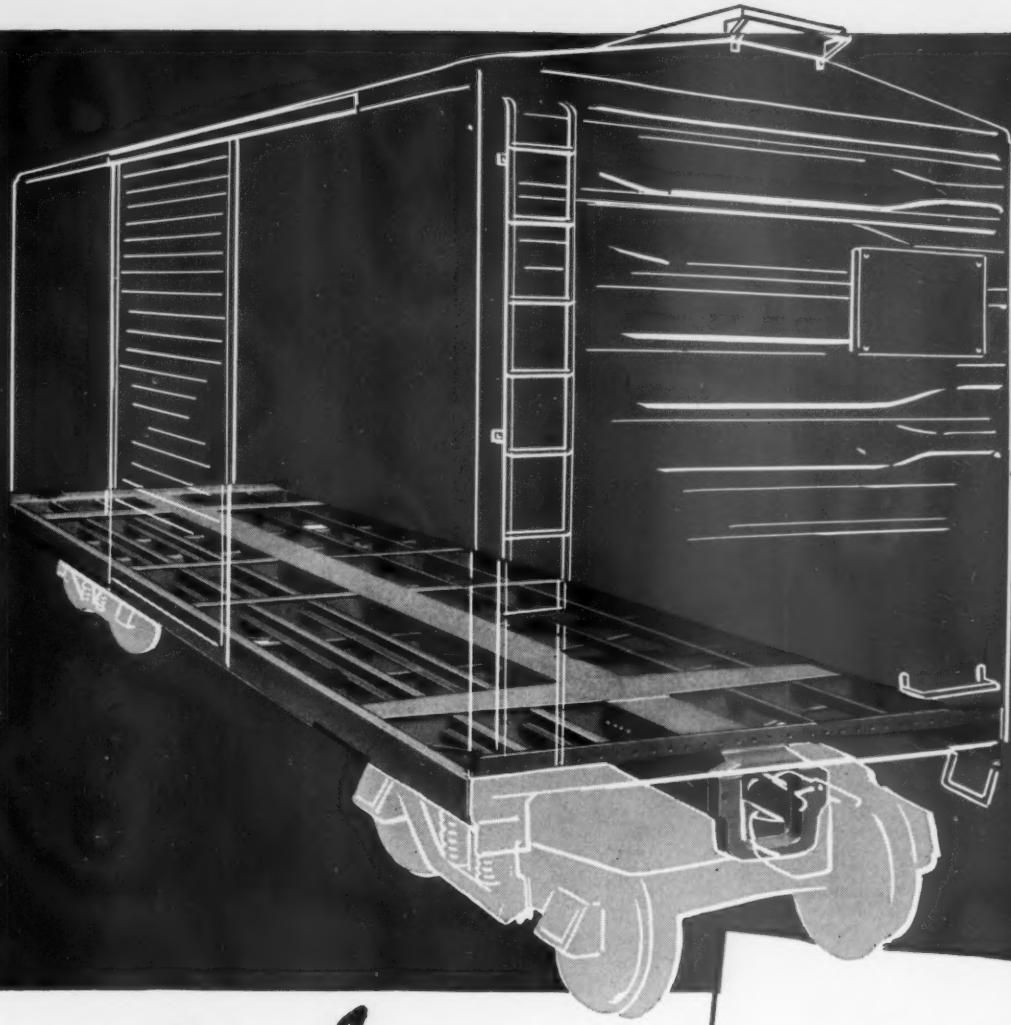
"ASIDE FROM THE DEMANDS OF THE LAW common sense and the enlightened self-interests of both the carriers and their patrons strongly support" the objective of simplified tariffs. So says Interstate Commerce Commissioner J. Haden Alldredge, in a feature article specially written for this issue of *Railway Age*, in which he comments approvingly upon the railroads' establishment of a special committee to concentrate on the task of improving both form and substance of freight tariffs.

. . . And Elsewhere

COMING NEXT MONTH: Next month's Freight Traffic Issue, to be dated October 1, will include, among other features, *Railway Age's* annual tabulation of freight stations equipped for mechanical handling, revised and enlarged.

LAST ROUNDHOUSE—HEADIN' FOR LAST ROUNDUP! The last one, anyway, on the Lehigh Valley—a 30-staller at Easton, Pa., is now being torn down, as the Valley has advanced from October to September 21 the probable date of complete conversion from steam to diesels.

NEW STATION? Pittsburgh's Penn-Lincoln Parkway project will, it is reported, affect the Baltimore & Ohio's facilities in the Water street area and may require replacement of the railroad's present passenger station in the vicinity of Grant and Water streets. The necessary railroad changes are still in the formative stage, with no contracts awarded and other details still undecided. No actual construction is anticipated during the current year.



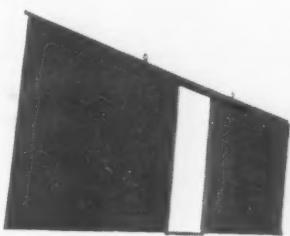
**THE
International
UNDERFRAME
a solid Foundation
for
International
SIDES AND DOORS**

A much sturdier underframe, incorporating a maximum utilization of material section with minimum weight. All down-band welded, AAR requirements equalled or surpassed in every feature. Delivered, upon specification, complete with couplers, draft gears, air brake equipment brackets, piping, lever carriers, etc.

International's Bulk-Lading Side Door. Requires no inside grain door . . . and has an access door for loading, inspection and sampling. Positive retainment on the car structure.

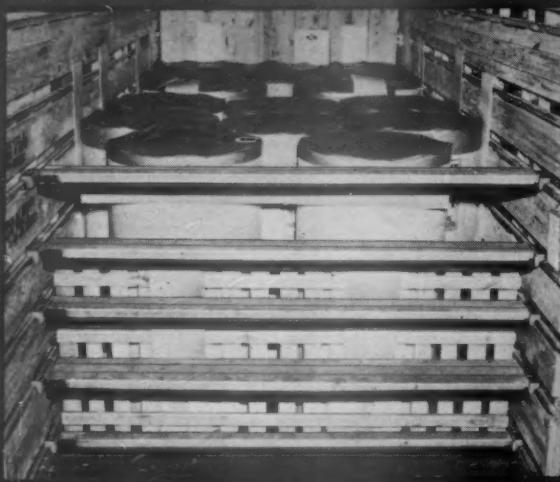


International's ALL-WELDED BOX-CAR SIDES. Delivered ready to assemble, to car owners who assemble their own cars. Maximum welded attachment to the side plate and side sill upper elements.



INTERNATIONAL STEEL CO.

RAILWAY DIVISION
Evansville 7, Indiana



How the
Evans DF Loader
saves money
for railroads
and shippers

by carrying
heavy, hard to
handle loads
like paper

Difficult loads like paper arrive in perfect condition with the Evans DF Loader—the Damage Free, Dunnage Free Loader. Savings in damage average \$35.40 on every car, often run much higher on fragile loads like glass, furniture, electrical appliances.

The Evans DF Loader also saves shippers an average of \$46.50 in dunnage. From floor to roof, from end to end, sturdy cross bars and combination deck boards and bulkheads separate, support and lock the load in the box car. Result: fast loading, prompt unloading, undamaged lading, car walls and floors. Cars carry bigger loads, too—up to 200% heavier. Carrier and shipper save a total of \$81.90 on the average load with the Evans DF Loader—the Damage Free, Dunnage Free Loader—the one general purpose Loader for every box car shipment.

*Evans Products Company, Railroad Loading & Equipment Division, General Offices:
Plymouth, Michigan. Plants: Plymouth, Mich.; Coos Bay, Ore.; Vancouver, B. C.*



...
EVANS

LOADING AND RAILROAD EQUIPMENT
.....
RETURNS REVENUE TO THE RAILS



**FOR
SAFETY**

**101
ALL NEW
INSPECTION
CAR**

- + Immediate Reverse**
- + Wheel Silencers**
- + Low Lifting Weight**

**THIS IS THE CAR WITH
MORE SAFETY FEATURES !**

More safety makes for more efficiency with the new Model 101 inspection car. With its simple friction drive transmission—four speeds forward, three reverse—it's a pleasure to operate. Low center of gravity helps it hug the rails. Full-vision cab* means more comfort, too. Rear lifting weight is only 98 pounds. All in all, the 101 is a 4-man car that should be investigated by every railroad. See your Fairbanks-Morse representative or write Fairbanks, Morse & Co., Chicago 5, Ill.

*Also available without cab.



FAIRBANKS-MORSE

a name worth remembering

RAILROAD EQUIPMENT • RAIL CARS • PUMPS • SCALES • ELECTRICAL MACHINERY
DIESEL AND DUAL FUEL ENGINES • DIESEL LOCOMOTIVES • MAGNETOS





Seven basic design and construction advantages of National C-1 Trucks help you deliver merchandise on time and in good order—for greater good will from your shippers and receivers. For a smoother, safer ride . . . depend on NATIONAL Lading-Conscious C-1 Trucks—they protect your equipment, your roadbed and the interests of your customers.

NATIONAL

Write for National C-1 Truck Circular No. 5150. The National Malleable and Steel Castings Co., Cleveland 6, Ohio.

- 1 **Quick Easy Visual Inspection**—Gives immediate assurance that friction control mechanism is functioning properly, without time delays or cost of handling or removing a single part.
- 2 **Friction Mechanism In Side Frame**—Simplifies control of lateral and vertical truck motion.
- 3 **Large Wedge Bearing Surfaces**—Wear is minimized because bolster is protected by hardened-steel wear plates.
- 4 **Low-Stressed Wedge Springs**—Low-rate wedge springs are cold-wound and shot-peened for extra fatigue resistance.
- 5 **Full Box-Section Bolster**—Bolster has maximum strength and rigidity because it is a full box-section from end to end . . . is not recessed or notched for friction control mechanism.
- 6 **Spring Deflections**—Springs of $2\frac{1}{2}$, $3\frac{1}{8}$, $3\frac{1}{4}$ or 4-inch deflection can be used.
- 7 **Wedge Aligning Lugs**—Four wedge aligning lugs integrally cast in the top of each journal box protect journal bearing lugs against peening and breaking.

NATIONAL MALLEABLE and STEEL

TRUCKS • COUPLERS • YOKES • DRAFT GEARS

CAP. 100000
LD. LMT. 121000
W-350 LT.WT. 48000

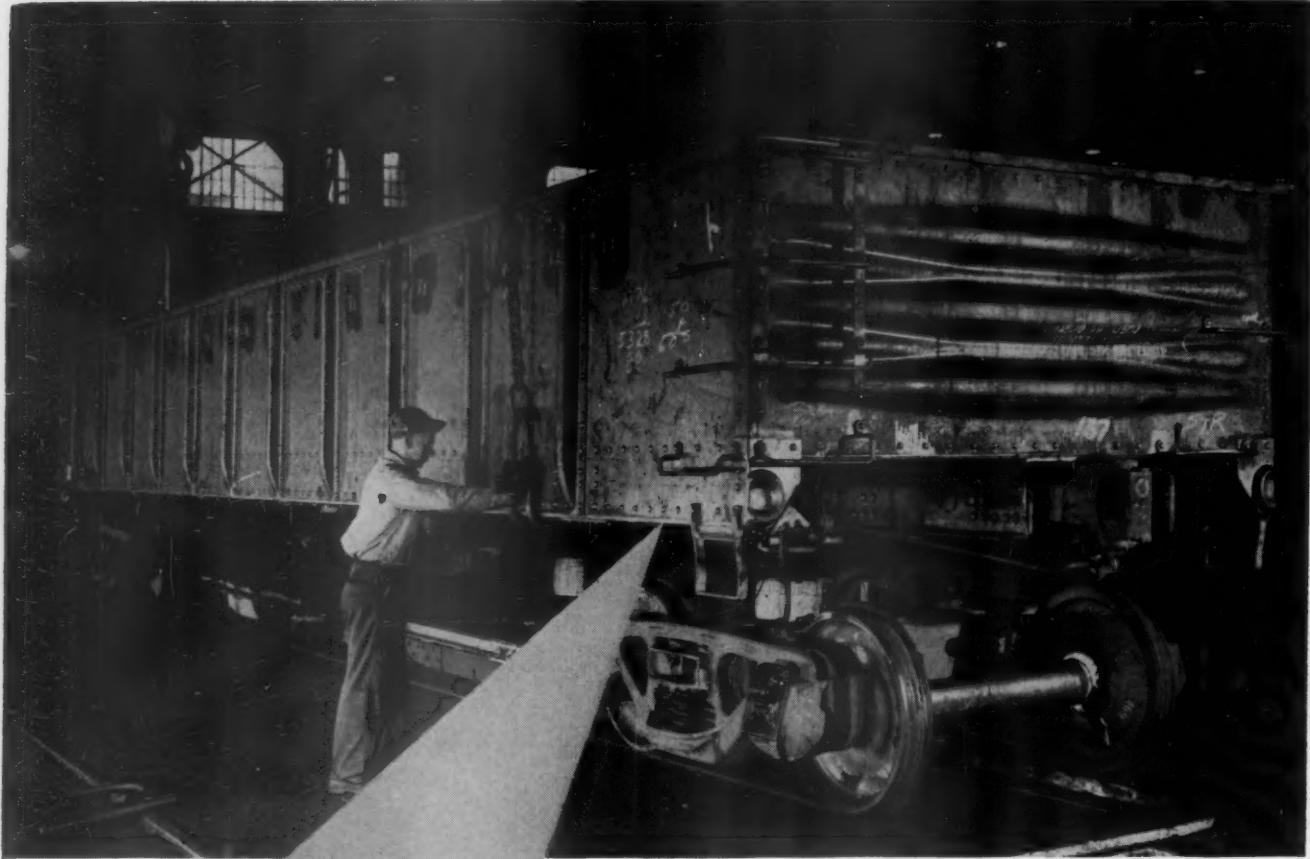


Lading-Conscious **C-1 TRUCKS**

*reduce damage claims . . .
protect your equipment*

CASTINGS COMPANY
JOURNAL BOXES AND LIDS





**IT TAKES
LESS STEEL
WHEN YOU USE
*Mayari R***



When you build railway cars with Mayari R, thinner-gage steel can be used. Underframes can be lighter. Deadweight can be trimmed from sides, ends, floors and body members. All of these advantages are gained without sacrificing strength, because Mayari R allows the use of higher working stresses.

Consider the mechanical properties of Mayari R: It has almost double the yield point and 5 times the atmospheric corrosion-resistance of structural carbon grades. It has better resistance to fatigue, impact and abrasion. And as far as workability is concerned, Mayari R can be fabricated like carbon steel in the as-rolled condition. It can be worked and welded with ordinary shop equipment.

For more information on the use of this low-alloy, high-strength, weight-saving steel, we suggest that you write for a copy of Catalog 259. It explains the properties of Mayari R in detail, and shows examples of deadweight reduction in railway equipment.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

*On the Pacific Coast Bethlehem products are sold by
Bethlehem Pacific Coast Steel Corporation
Export Distributor: Bethlehem Steel Export Corporation*

Mayari R makes it lighter... stronger... longer lasting



There's a big job ahead

How your engines stand up in the months ahead is important to the whole defense effort of the free world. Railroads are life lines — our country depends on them to shoulder tremendous transportation and material handling loads vital to survival. And we're entering a period when equipment must stand up or else!

Look at the engine field. Military and Defense Rated Orders are taking their share of "Caterpillar" production. Shortages of steel and other materials make it still more difficult to supply all the new machines required. This means that *much present equipment must be kept in use.*

"Caterpillar" Railroad Diesels are built to handle rugged duty with high availability. On-the-job records prove their dependability under tough going. They're engineered to serve you long and faithfully. *How long is up to you. Good care pays off in longer wear.*

You can add many hours to engine life if you follow sound maintenance practices. Anticipate your parts needs. Let your "Caterpillar" dealer help you. If a part is not readily available, he has the knowledge, tools and facilities to rebuild many worn parts.

CATERPILLAR, PEORIA, ILLINOIS

A "Cat" Diesel D13000 Engine powers this Ohio Locomotive Crane with 60-foot boom equipped to handle a 2-yard clamshell. This rig does double duty for the Pittsburgh Metallurgical Co., Inc., Calvert City, Ky. It's used to unload scrap iron from river barges—and works as a switcher when the regular locomotive is not available. Operator O. B. Capp says: "I've operated 'Caterpillar' equipment for over 19 years and I say when a better industrial engine is built, 'Caterpillar' will build it."

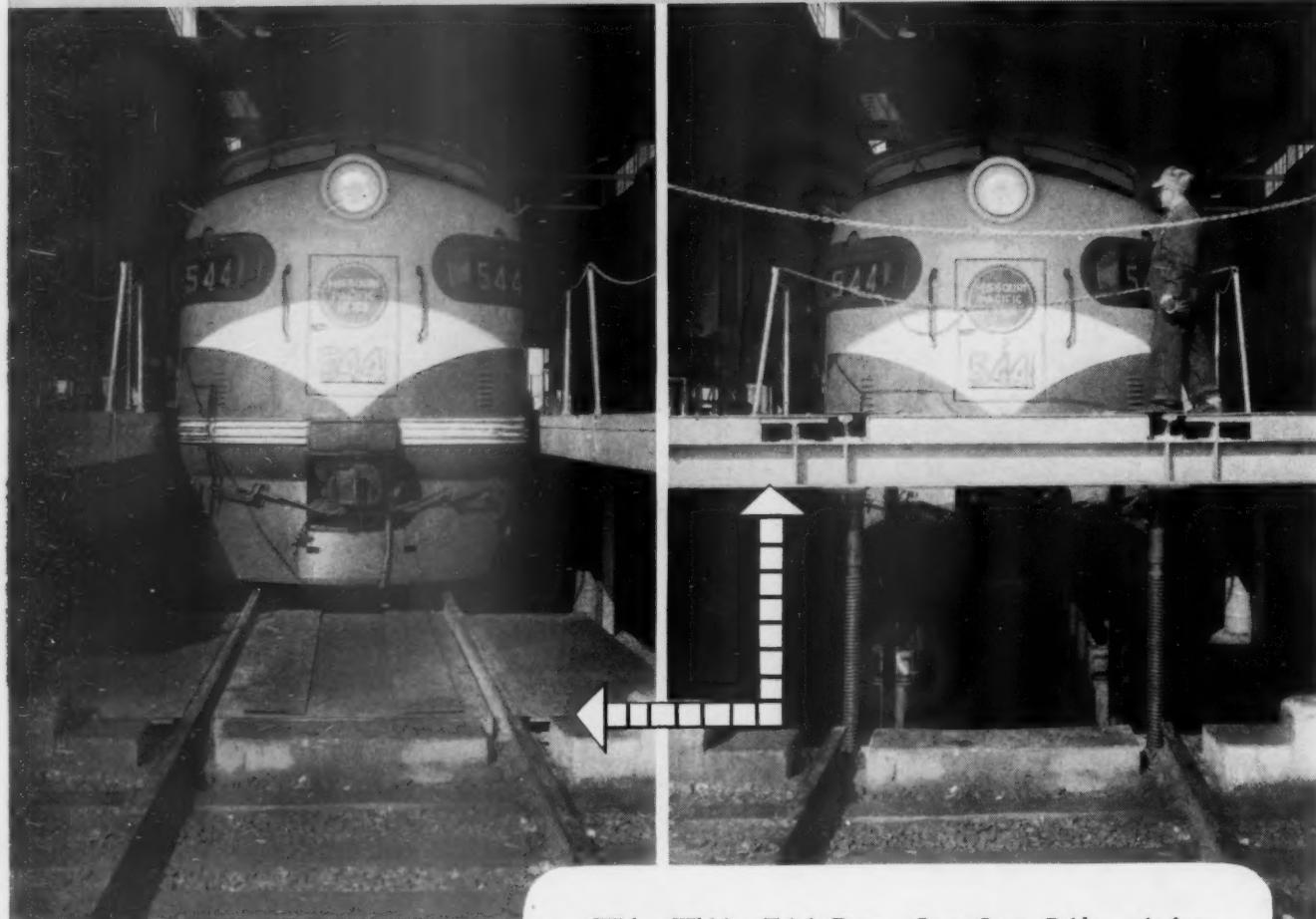
You're the Doctor

Don't let your engine overheat. Maintain the cooling system, keeping it free of scale, rust and sediment. Use soft or treated water and, when freezing temperatures exist, protect your engine with anti-freeze. Clean the radiator periodically, removing foreign matter from the core by brushing or washing. Use chemical flushing solutions. Prevent engine troubles which come with overheating. Consult your Operator's Instruction Book.

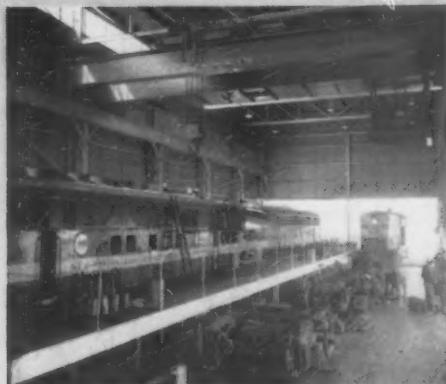


CATERPILLAR
REG. U. S. PAT. OFF.
RAILROAD
DIESELS

GIVE 'EM THE "RUN AROUND" THAT SAVES TIME a WHITING CROSS-OVER BRIDGE



Photos Courtesy Missouri Pacific



An interior view of the Missouri Pacific's newly completed Diesel repair shop at Houston, Texas. Its up-to-date service equipment includes a Whiting 30-ton Overhead Crane, Model "BW", Drop Table, and Whiting Triple-Duty Cross-Over Bridge.

With a Whiting Triple-Duty Cross-Over Bridge, you can get full use of end space in your shop. Trucking units can run around both ends of the shop when the Cross-Over Bridge platform is in raised position, and workers can move freely from side to side. At the same time, there is complete freedom of movement with plenty of head room at the depressed floor level.

Rails are embedded in the

Cross-Over Bridge platform. When lowered to track level, these rails coincide with the shop track, allowing locomotives to be moved in or out of the shop. Controlled by push buttons and limit switches.

The Whiting Cross-Over Bridge actually adds more productive man power to your shop by eliminating the time consumed climbing stairs and ramps or crawling over tracks. Write for details.



15603 Lathrop Avenue, Harvey, Illinois
RAILROAD MAINTENANCE EQUIPMENT
Offices in Chicago, Cincinnati, Cleveland, Detroit, Houston, Los Angeles, New York, Philadelphia, Pittsburgh, St. Louis, and Seattle. Representatives in other principal cities. Canadian Subsidiary: Whiting Corporation (Canada) Ltd., Toronto, Ontario. Export Department: 30 Church Street, New York 7, N.Y.

Exide-Ironclad BATTERIES

ARE YOUR BEST POWER BUY— AT ANY PRICE

They ASSURE high maneuverability of trucks . . . rapid, accurate handling of material. PROVIDE uniform rate of material handling with no unscheduled down time. SHOW lowest costs of operation, maintenance, repair, depreciation . . . inherently safe. Call in an Exide representative, and let him prove these facts.

THE ELECTRIC STORAGE BATTERY COMPANY
Philadelphia 2

Exide Batteries of Canada, Limited, Toronto

"Exide-Ironclad" Reg. Trade-mark U. S. Pat. Off.





DOORS • SIDE PANELS
BULKHEADS and PARTITIONS
in This Luxury Car are **73% Lighter**
Than Standard Steel Construction . . .

...because they are **MET-L-WOOD**

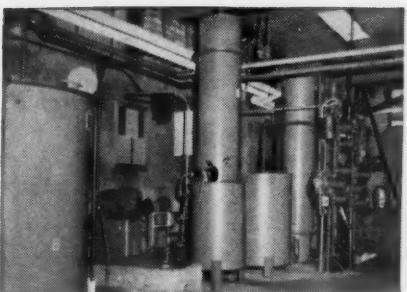
● Met-L-Wood, used in passenger cars, locomotives and baggage cars cuts deadweight to a minimum consistent with specified strengths, stiffnesses and durability. As an example, Type 2P2- $\frac{3}{8}$ " Met-L-Wood, used in side panels and partitions has the stiffness of $\frac{1}{4}$ " steel plate—yet weighs only 2.6 lbs./sq. ft. as against 10 lbs./sq. ft. for $\frac{1}{4}$ " steel plate!

Whether you require prefabricated Met-L-Wood units to your specifications, or can use stock sizes and finishes, the basic utility and economy of Met-L-Wood for railroad rolling stock construction is worth investigating . . . today. Write for details on your specific requirements. Our engineering staff will gladly assist you in adapting Met-L-Wood versatility to your needs.

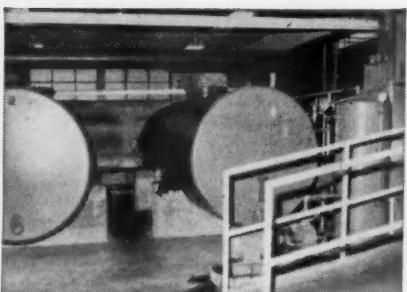
MET-L-WOOD CORPORATION

6755 West 65th Street, Chicago 38, Illinois

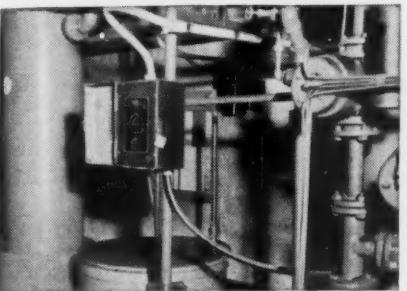
MET-L-WOOD • STRONG . . . LIGHT . . . Smooth Finish . . . Sound Deadening . . . Fire-Resisting . . . Insulating



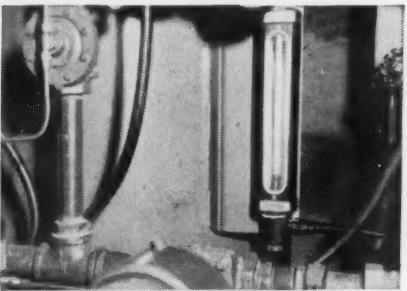
1. From left: rust inhibiting solution tank; pump; decarbonator; regenerant solution tank; anion exchange—absorber tank.



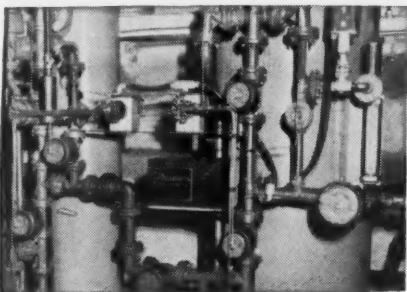
2. 2,500-gal. storage tanks from which water is delivered, by centrifugal pump and pressure tank, to outlets in the Diesel shop.



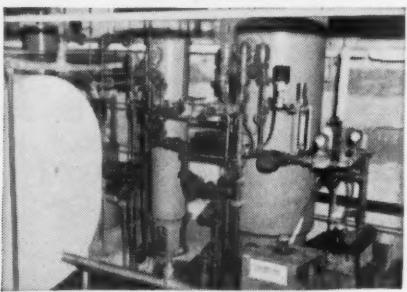
3. Solu-Bridge determines dissolved mineral content of the effluent from anion tank—either accepting or rejecting the water.



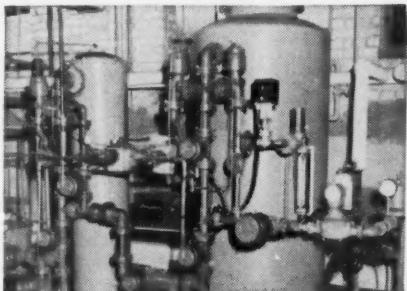
4. Device resembling a water gauge is the Flowrator which proportions sulphuric acid solution for regenerating cation exchanger.



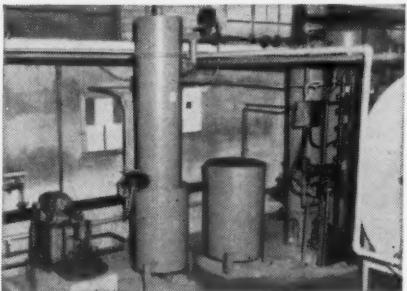
5. Proper intervals are determined by electric timer to automatically position air valves in completing backwash operation.



6. Concentrated sulphuric acid is diluted in proper proportion by automatic regulating valves, flow-control devices and Flowrator.



7. Controls "fail safe." Air supply failure automatically closes inlet valve. Solenoid air valve closes inlet valve should electric power fail.



8. Solu-Bridge tests purity—only water of pre-determined mineral content enters decarbonator. Sub-standard water flows down drain.

DEARBORN CHEMICAL COMPANY
Merchandise Mart Plaza

Chicago 54, Illinois

Dearborn
TRADE MARK REGISTERED

THE LEADER IN WATER TREATMENT AND RUST PREVENTIVES

DEARBORN DESIGNS FULLY AUTOMATIC DE-IONIZING PLANT

Electric and Pneumatic Controls Measure Purity of Water

ONLY PERIODIC INSPECTION BY SINGLE ATTENDANT NECESSARY

The new, automatic Dearborn de-ionizing system, installed in the recently built Bensenville Diesel shop, provides the Chicago, Milwaukee, St. Paul and Pacific these distinct advantages:

- Fully automatic operation, including regeneration cycles, assuring sufficient quantities of de-ionized water even though plant attendant is off duty. *This is important because 40-hour week requires that plant function without attention for one, two and sometimes three days.*
- Automatic measurement of water purity. If accepted, water is passed on to storage tanks—water not passing quality standard is rejected.
- Purity controls of the system are adjustable to detect changes in water quality.
- Controls designed to "fail safe." In event of air pressure or electric power supply failure, plant automatically shuts down until failure is corrected.

Dearborn Engineers are specialists in designing de-ionizing systems to exactly fit the requirements of your railroad.

WRITE FOR BOOKLET

A copy of "Dearborn De-Ionizing Systems," containing valuable information about how to economically secure the mineral-free water you need, will be sent on request.



Dearborn Chemical Company, Dept. RA
Merchandise Mart Plaza, Chicago 54, Ill.

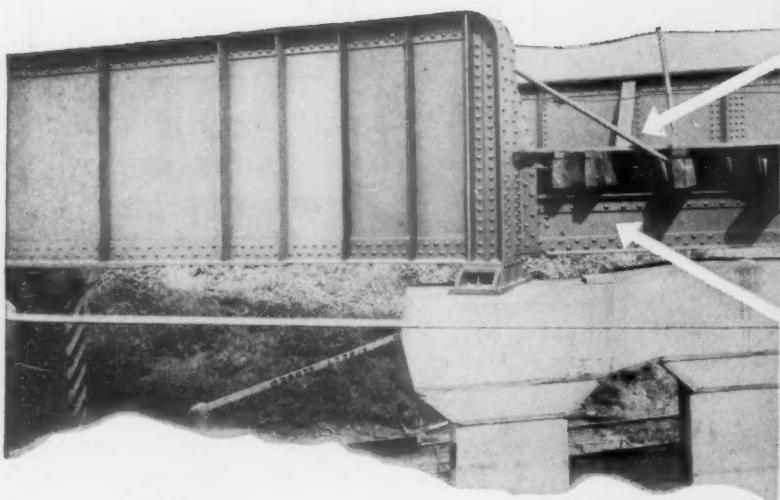
Please send booklet, "Dearborn De-Ionizing Systems."
 Have a Dearborn Engineer call.

Name.....

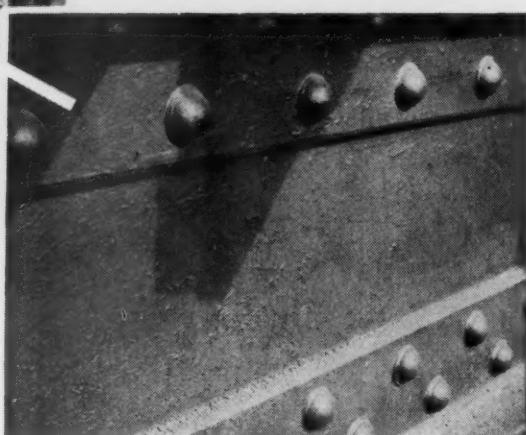
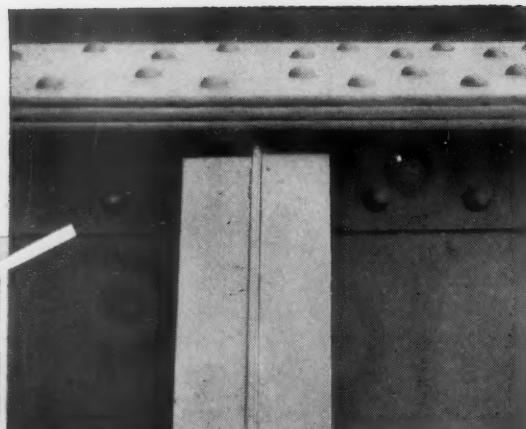
Railroad.....

Address.....

City..... Zone..... State.....

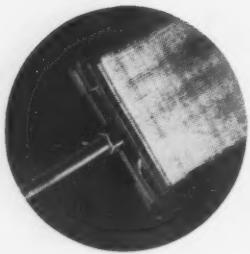


All steelwork on this bridge was flame-cleaned before paint was applied. Today, after 9 years' service, the original paint job still provides complete protection against corrosion. Present condition of surfaces is clearly shown by unretouched close-ups.



Your Steelwork . . .

How Will It Look in 1960?



Steelwork you coat with good paint today can still look like new ten years from now, if you flame-clean all exposed surfaces first. And what you'll save on maintenance, because of increased protection due to flame-cleaning, should more than pay for all the apparatus and materials you need for the job.

Flame-cleaning is simple to do, requires little equipment, and costs little. A brush of oxy-acetylene flames pops off scale and drives out moisture. Paint

applied to the warm, dry surface goes on quickly and smoothly, bonds tightly, and lasts longer.

Flame-cleaning is only one of many time- and moneysaving OXWELD methods developed as a result of working with American railroads for more than a third of a century. So, whatever your problem, whether it's in the shop or out on track, there is a good chance that OXWELD know-how, show-how, and equipment can help you do it better, quicker, and at lower cost.

P. S. Send for additional information on flame-cleaning.

OXWELD RAILROAD SERVICE COMPANY
A Division of Union Carbide and Carbon Corporation

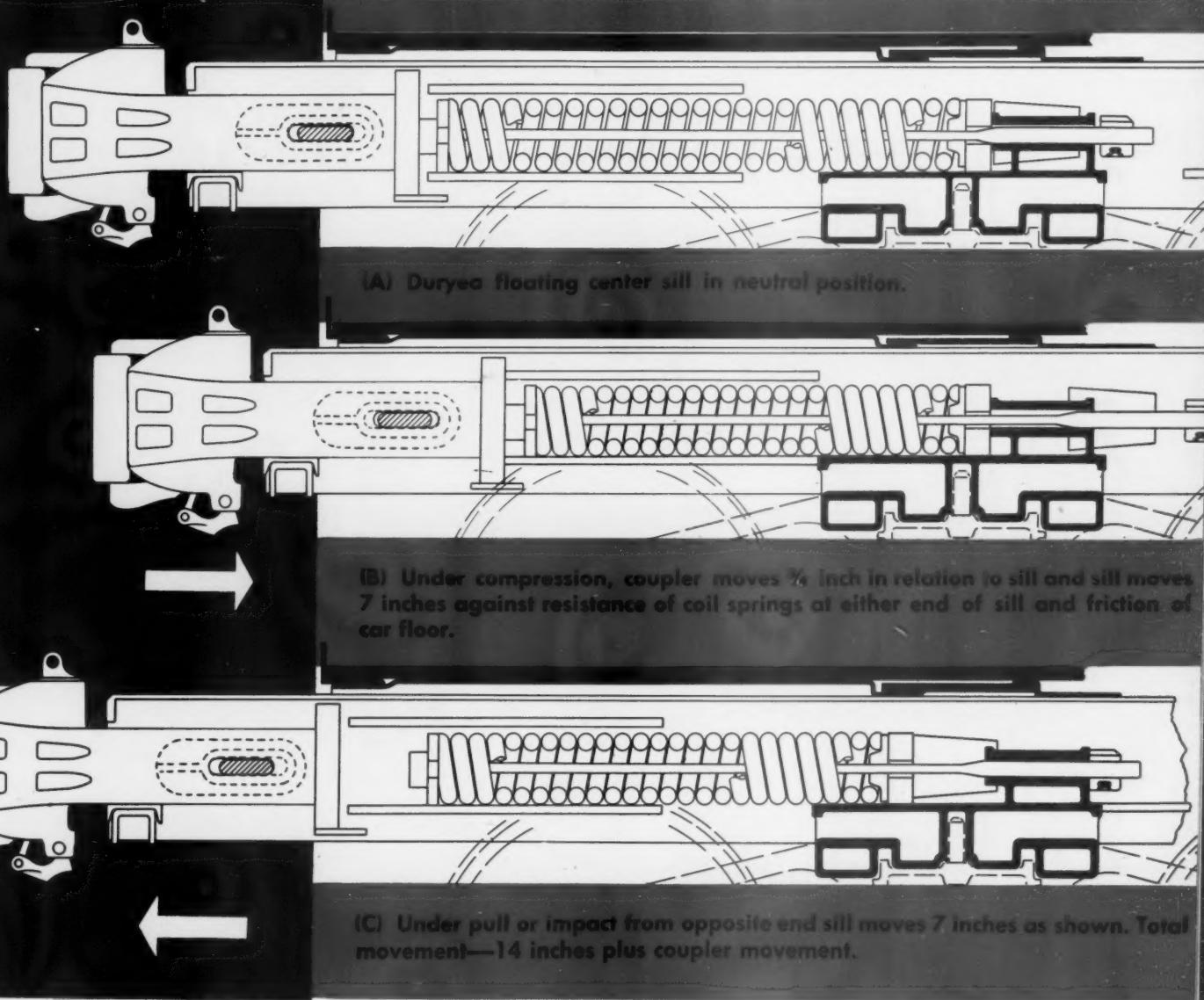
UCC
Carbide and Carbon Building Chicago and New York
In Canada:
Canadian Railroad Service Company, Limited, Toronto



SINCE 1912 THE COMPLETE OXY-ACETYLENE SERVICE FOR AMERICAN RAILROADS

The term "Oxweld" is a registered trade-mark of Union Carbide and Carbon Corporation.

THE CUSHIONING EQUIPMENT THAT PROVIDES LADING PROTECTION



DOUBLE ACTION! Double Capacity! 40% extra lading protection! That's what you get when freight cars are safeguarded with Duryea Cushion Underframes.

How? Why? The Duryea Cushion Underframe is unique. A floating center sill, it moves under impact while the car stands still. Subjected to the thrust of a moving car, the sill starts to move but movement is immediately resisted by coil springs within the sill at either end and also by the frictional resistance of the sill against the deflection of the

loaded car. There is a maximum sill travel of seven inches in either direction.

In consequence of this unique Duryea design, shock transference to car structure is extremely low . . . for a loaded car coupled at 5 miles per hour, only 16% of the transference resulting when cars are equipped with conventional draft rigging.

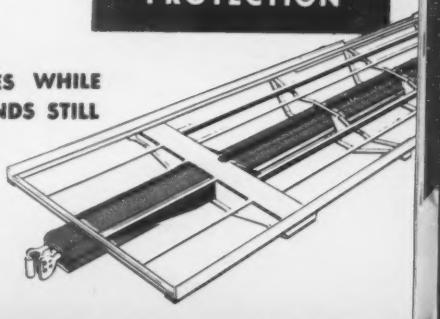
For less lading damage, longer car life, more in-service time and consequent greater car revenue, specify Duryea Cushion Underframes on all new cars.

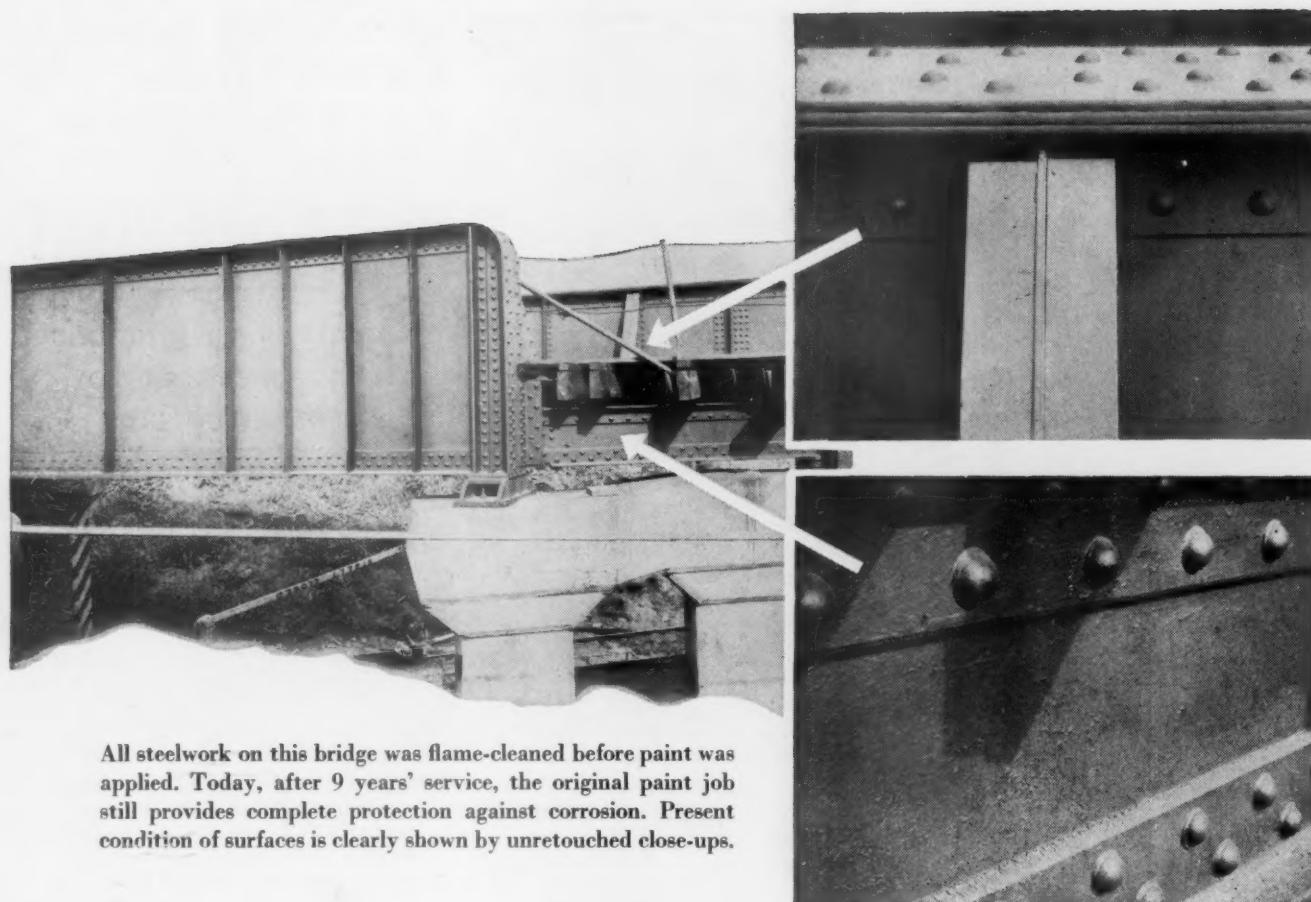
HULSON CO. 332 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS



duryea
cushion underframe

THE SILL MOVES WHILE
THE CAR STANDS STILL

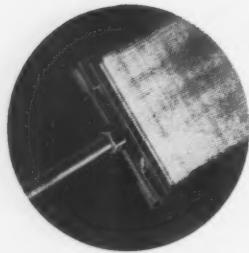




All steelwork on this bridge was flame-cleaned before paint was applied. Today, after 9 years' service, the original paint job still provides complete protection against corrosion. Present condition of surfaces is clearly shown by unretouched close-ups.

Your Steelwork . . .

How Will It Look in 1960?



Steelwork you coat with good paint today can still look like new ten years from now, if you flame-clean all exposed surfaces first. And what you'll save on maintenance, because of increased protection due to flame-cleaning, should more than pay for all the apparatus and materials you need for the job.

Flame-cleaning is simple to do, requires little equipment, and costs little. A brush of oxy-acetylene flames pops off scale and drives out moisture. Paint

applied to the warm, dry surface goes on quickly and smoothly, bonds tightly, and lasts longer.

Flame-cleaning is only one of many time- and moneysaving OXWELD methods developed as a result of working with American railroads for more than a third of a century. So, whatever your problem, whether it's in the shop or out on track, there is a good chance that OXWELD know-how, show-how, and equipment can help you do it better, quicker, and at lower cost.

P. S. Send for additional information on flame-cleaning.

OXWELD RAILROAD SERVICE COMPANY A Division of Union Carbide and Carbon Corporation

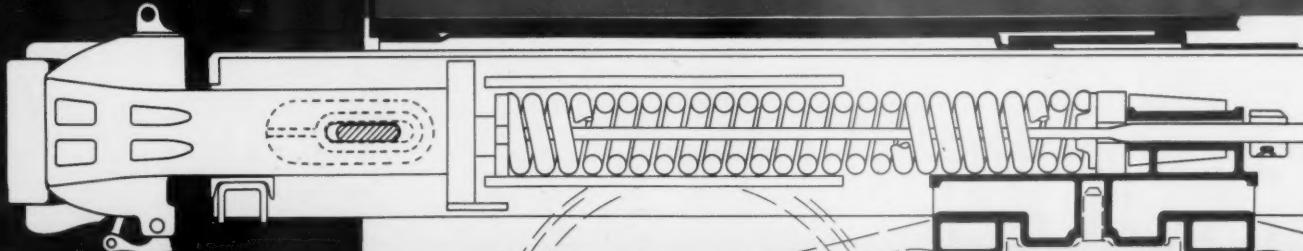
UCC
Carbide and Carbon Building Chicago and New York
In Canada:
Canadian Railroad Service Company, Limited, Toronto



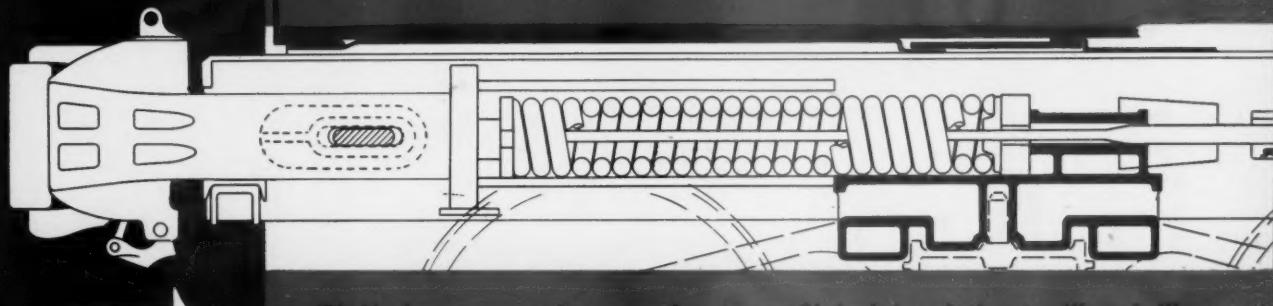
SINCE 1912 THE COMPLETE OXY-ACETYLENE SERVICE FOR AMERICAN RAILROADS

The term "Oxweld" is a registered trade-mark of Union Carbide and Carbon Corporation.

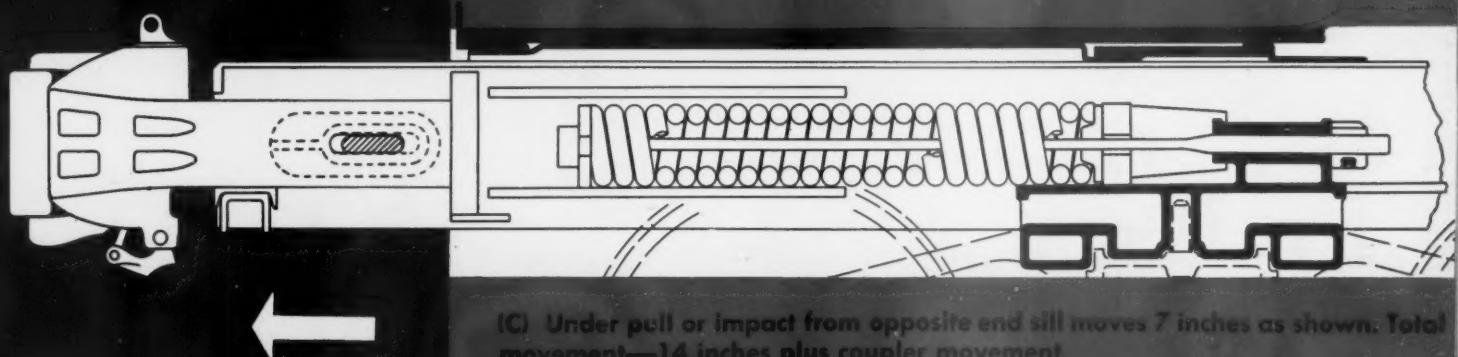
THE CUSHIONING EQUIPMENT THAT PROVIDES LADING PROTECTION



(A) Duryea floating center sill in neutral position.



(B) Under compression, coupler moves $\frac{1}{4}$ inch in relation to sill and sill moves 7 inches against resistance of coil springs at either end of sill and friction of car floor.



(C) Under pull or impact from opposite end sill moves 7 inches as shown. Total movement—14 inches plus coupler movement.

DOUBLE ACTION! Double Capacity! 40% extra lading protection! That's what you get when freight cars are safeguarded with Duryea Cushion Underframes.

How? Why? The Duryea Cushion Underframe is unique. A floating center sill, it moves under impact while the car stands still. Subjected to the thrust of a moving car, the sill starts to move but movement is immediately resisted by coil springs within the sill at either end and also by the frictional resistance of the sill against the deflection of the

loaded car. There is a maximum sill travel of seven inches in either direction.

In consequence of this unique Duryea design, shock transference to car structure is extremely low . . . for a loaded car coupled at 5 miles per hour, only 16% of the transference resulting when cars are equipped with conventional draft rigging.

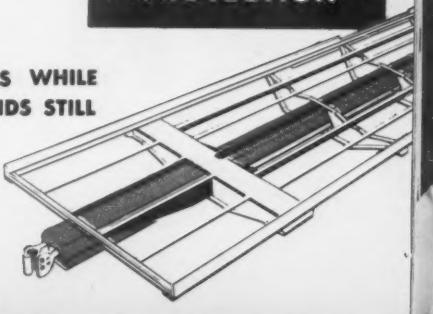
For less lading damage, longer car life, more in-service time and consequent greater car revenue, specify Duryea Cushion Underframes on all new cars.

HULSON CO. 332 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS



duryea
cushion underframe

THE SILL MOVES WHILE
THE CAR STANDS STILL



Buy the right HYSTER® 20 to fit your particular job

6 variations of one basic model...select the one that best suits your needs

What lifting and transporting capacity do you require from a lift truck? In the HYSTER 20 you can have a model with—

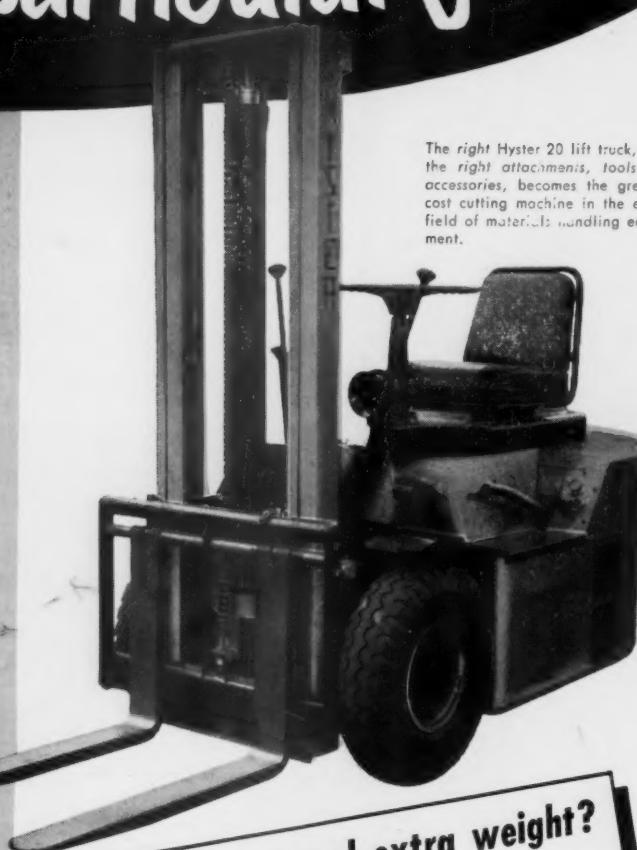
- 1) **2000 lbs.** capacity at 15" load centers (Standard Hyster 20)
- 2) **2000 lbs.** capacity at 24" load centers (Optional additional counterweight added to Standard 20)
- 3) **1300 lbs.** capacity at 15" load centers (Skeleton counterweight)
- 4) **1000 lbs.** capacity at 24" load centers (Skeleton counterweight)
- 5) **2000 lbs.** capacity at 15" load centers (Skeleton counterweight plus optional additional counterweight)
- 6) **1500 lbs.** capacity at 24" load centers (Skeleton counterweight plus optional additional counterweight)

Where the transporting of 2000 lbs. on 24" load centers is a prime requirement, the installation of the additional optional counterweight to the standard 20 model achieves the necessary result.

The Hyster 20 with skeleton counterweight is of great importance where floor load limits exist; where elevator lifting capacities are materials handling factors; and where a high percentage of the loads are in the 1000 lb. range.

By quickly installing the additional optional counterweight to this same Hyster 20 with skeleton counterweight, lifting capacities are increased from 1300 lbs. to 2000 lbs. at 15" load centers; and increased from 1000 lbs. to 1500 lbs. at 24" load centers. This gives the owner a 2 in 1 lift truck combination.

The right Hyster 20 lift truck, with the right attachments, tools and accessories, becomes the greatest cost cutting machine in the entire field of materials handling equipment.



Why carry around extra weight?

The Hyster 20 for 1300 lbs. at 15" load centers or 1000 lbs. at 24" load centers has a skeleton counterweight that reduces the weight of the standard Model 20 by 600 lbs. This light weight but heavy duty fork lift truck will cut maintenance and operating costs; yet it will provide the maximum lifting and transporting capacities required in a great many industries.

The additional optional counterweights can be installed in less than 30 minutes; removed in much less time.

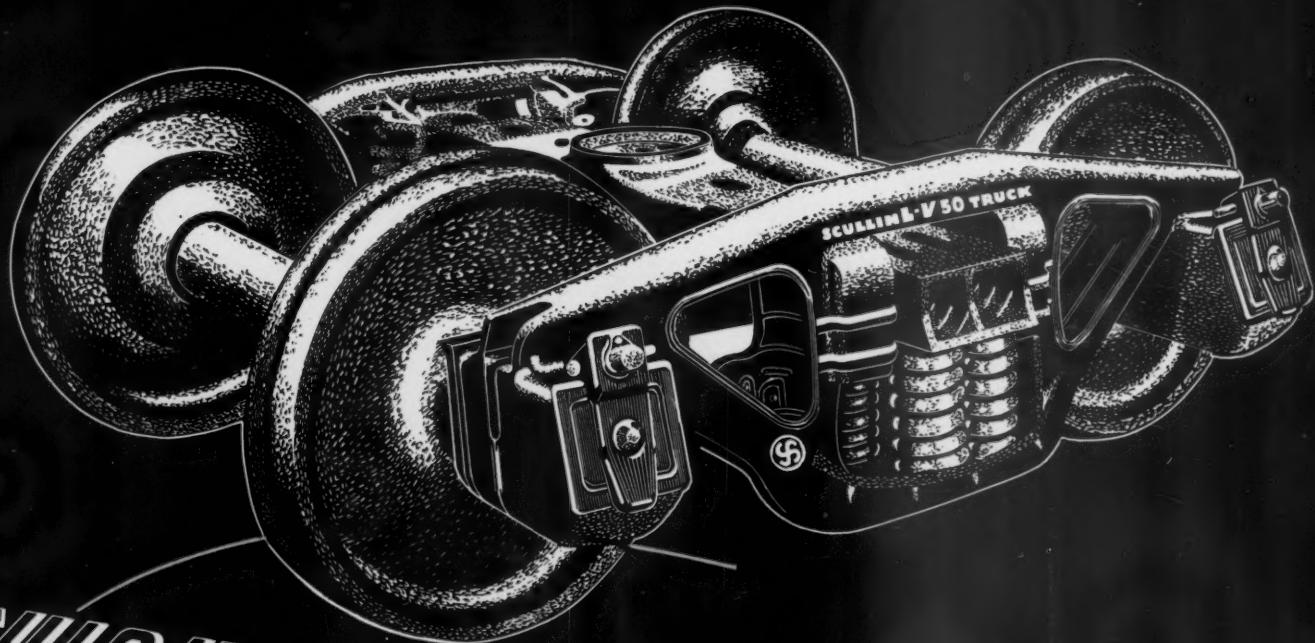
See your Hyster dealer for further information.

HYSTER COMPANY

THREE FACTORIES

2932 N. E. CLACKAMAS ST.... PORTLAND 8, OREGON
1832 NORTH ADAMS STREET... PEORIA 1, ILLINOIS
1032 MEYERS STREET..... DANVILLE, ILLINOIS





you're sure high speeds are safe on **SCULLIN**  **TRUCKS**



THE SMOOTHEST TRAFFIC-BUILDERS BETWEEN LCL AND YOUR RAILS

Photo Courtesy
Cotton Belt Route

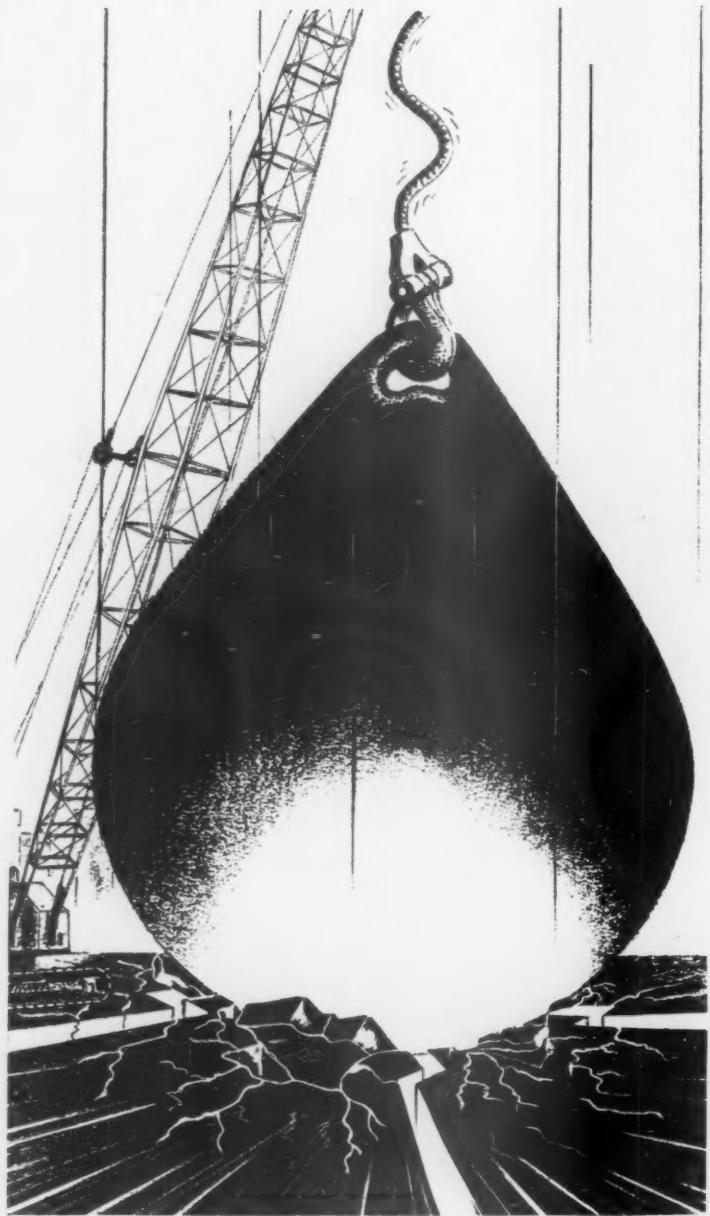


NEW YORK
CHICAGO
BALTIMORE
RICHMOND, VA.

SCULLIN STEEL CO.
SAINT LOUIS 10, MISSOURI

one BIG shock

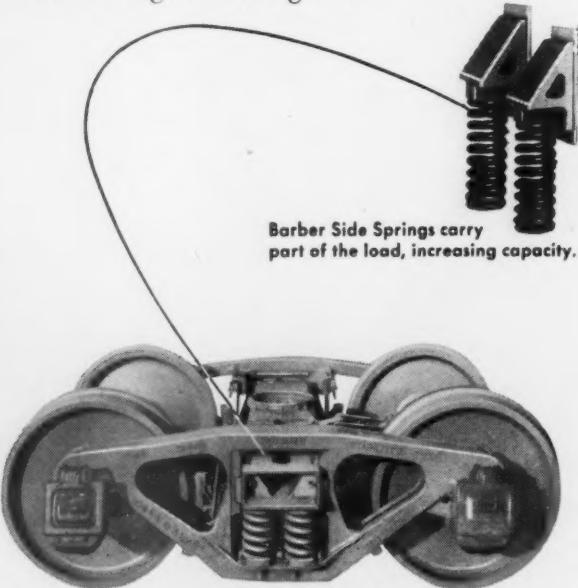
does more damage than
a lot of little ones!



Fewer heavy shocks are passed on to the car and lading by patented *Barber Stabilizers* than by other systems of spring control. That's why Barber Trucks ride better.

This fact becomes clear when (1) a study is made of the Test Data of the Base Car and compared with ANY Test Figures which have been sent to you; and when (2) an Analysis is made of the Savings in Damage Claims on Barber-equipped cars.

It takes a whale of a lot of little shocks to do as much damage as one big one.



Over 290,000 Car Sets of **BARBER STABILIZED TRUCKS** have been specified





Equipment-for the road ahead

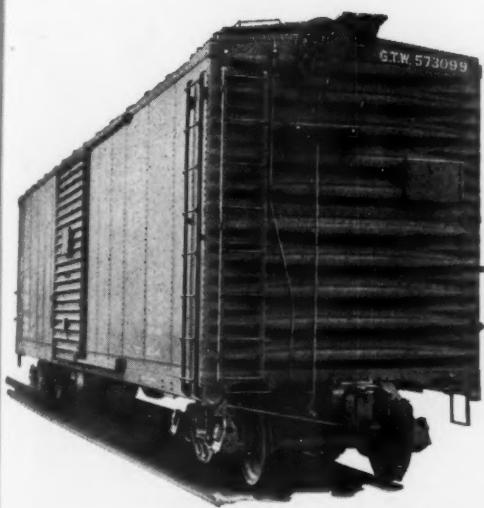
Seldom have American railroads been faced with a greater or more important job. More and more goods must be hauled as our civilian economy and military program expand. Larger fleets will be necessary. Obsolete and worn out equipment must be replaced. Pressed Steel Car Company manufactures standard and custom built box cars, refrigerator cars, gondola and hopper cars famous for efficient performance on every major road in America.

We suggest you bring your requirements to us and make sure you are equipped and prepared for the road ahead.



PRESSED STEEL CAR COMPANY, Inc.

6 No. Michigan Ave.
Chicago, Ill.



Mount Vernon, Ill.
Plant





26 MILLION TONS

of steel scrap "ain't hay"

IT took 57,000 tons of steel to build the Empire State Building in New York. That's about one-tenth of one percent of the tonnage of scrap required to produce the new steel demanded for America's defense and civilian needs this year.

Half of this scrap is produced by the steel mills themselves. The other half - approximately 26 million tons - must be supplied by the public. That tremendous tonnage is the equivalent of 461 Empire State Buildings - over 1400 carloads of scrap every day of the year.

Right now there is a scrap shortage. It threatens to interfere with steel produc-

tion. So we appeal to you, as a user of steel and steel products, to do all you can personally to help collect scrap.

Somewhere in your place of business - and even at home - there are things that can be scrapped - worn-out or obsolete machines, pipe, boilers, tools, structural parts, etc., that you'll never use again in their present form. Turn them in through regular channels. Call the nearest dealer and start your scrap on its way to the steel mills - to help America reach its production goal of 105 million tons of new steel in 1951. It is this team-work that will help us win the victory again.

The Youngstown Sheet and Tube Company
 General Offices - Youngstown 1, Ohio
 Export Offices - 500 Fifth Avenue, New York
MANUFACTURERS OF CARBON ALLOY AND YOLOY STEELS



The steel industry is using all its resources to produce more steel, but it needs your help and needs it now. Turn in your scrap, through your regular sources, at the earliest possible moment.

**NOW! when maintenance is
more important than ever**



*Make
car
lumber
LAST!*

use Penta* Protected wood

Heavy traffic does not *have* to mean more maintenance for busy equipment. You can cut maintenance by protecting car lumber, and all lumber, with PENTA . . . and give your wood longer, more dependable life.

PENTA protects wood against termites and decay, gives wood greater serviceability. PENTA-PROTECTED WOOD is clean, easy to handle and can be painted. PENTA is economical, too!

Railroad service records prove that treated wood lasts three to four times longer than untreated wood. This means that PENTA-PROTECTED WOOD costs you *less per year!*

USE PENTA-PROTECTED WOOD not only for car lumber but also for poles, loading platforms, all wood buildings and other wood construction. Protect your investment in wood. Make it a *sure* thing . . . with PENTA!

INVESTIGATE Penta THE CLEAN WOOD PRESERVATIVE

*PENTA is a popular abbreviation of the name of the chemical, PENTACHLOROPHENOL.

**THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN**





ALL-PURPOSE MOTIVE POWER INCREASES REVENUE FOR THE NEW HAVEN

Just one type of locomotive—the Alco-GE 1600 hp road switcher—provides all the motive power for the New Haven's Berkshire line.

Operating from a pool at Danbury, only seven locomotives are necessary to perform all assignments—freight, passenger and switching—day in and day out.

In multiple the units haul heavy freights. Singly they haul local freights, daily passenger trains, and perform all necessary yard switching. On weekends they also haul summer vacation specials and ski trains.

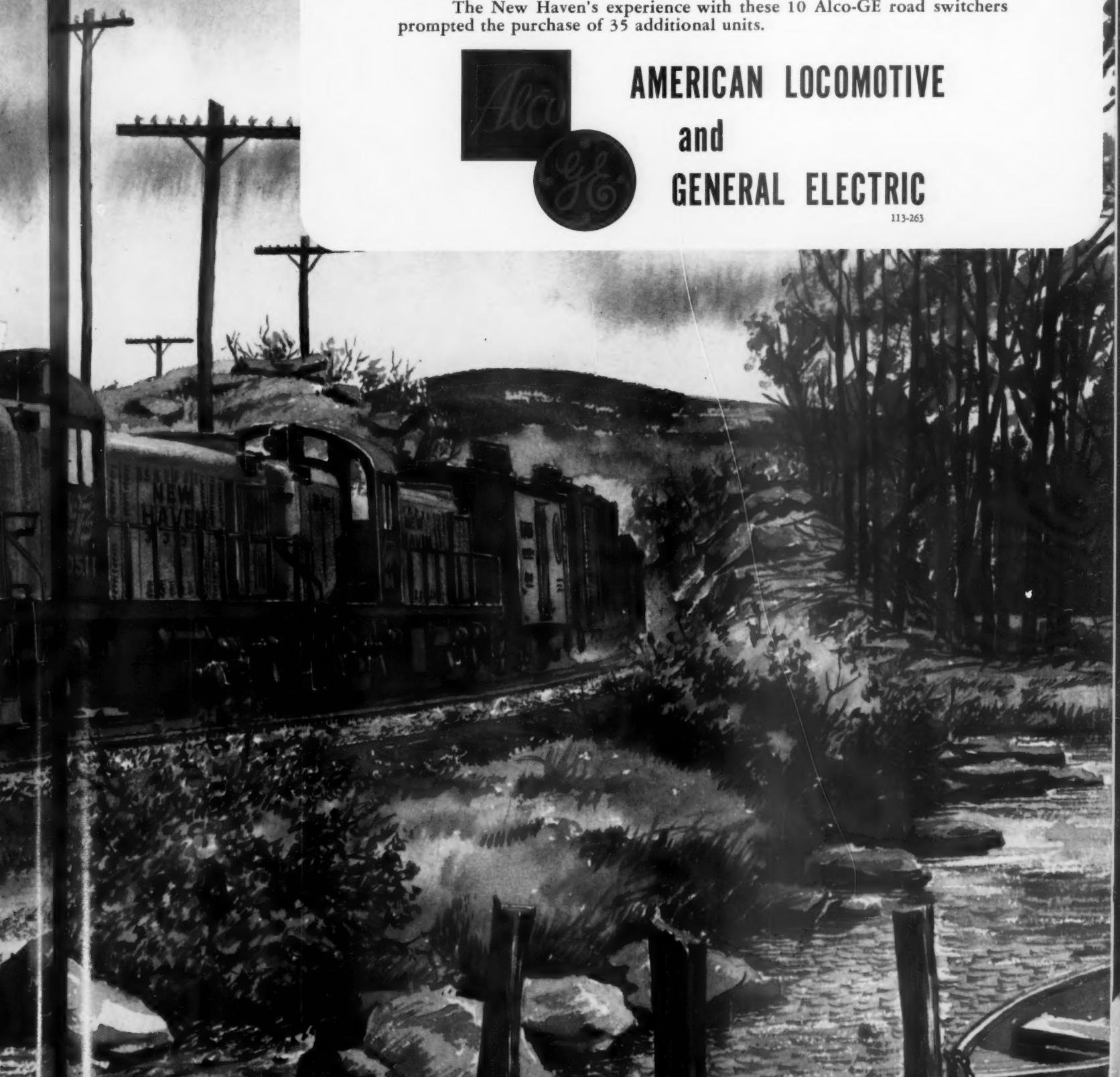
Originally ten locomotives were assigned this branch. But intense utilization, beyond the New Haven's expectations, reduced the number to seven, releasing three for service elsewhere.

The New Haven's experience with these 10 Alco-GE road switchers prompted the purchase of 35 additional units.



AMERICAN LOCOMOTIVE
and
GENERAL ELECTRIC

113-263

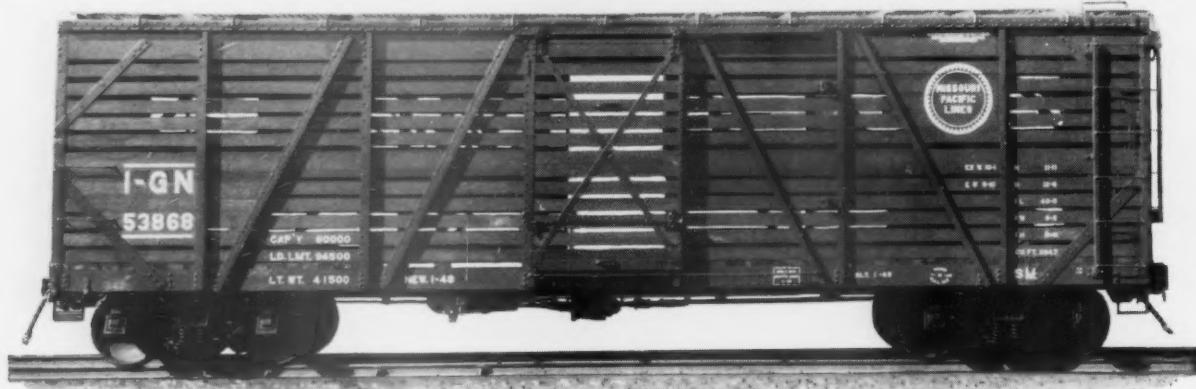


*The next
hundred years
will be easier...*



MISSOURI
PACIFIC
LINES

with KOPPERS-PRESSURE TREATED CAR DECKING!



THE Missouri Pacific Railroad has hauled millions of head of cattle since 1851. And it has worn out hundreds of stock cars. We hope the volume of livestock carried on the Missouri Pacific will increase during the next hundred years . . . and we know the wear-and-tear on its stock cars will be less damaging and less costly because Missouri Pacific stock cars are being decked with pressure-treated wood.

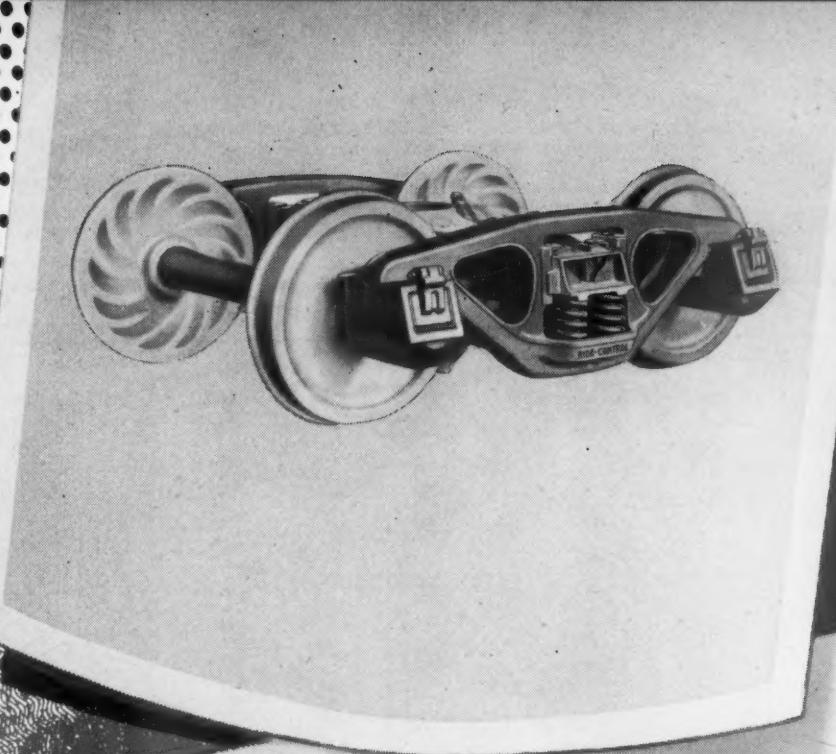
Koppers Pressure Treatment more than triples the service life of car decking. The saving on maintenance costs amounts to an annual dividend of more than 60% on the cost of pressure treatment. Increased revenues result from the fact that cars spend more time in service, less time in the repair shop.

We'll gladly make an analysis and a report of potential savings to your company through the use of pressure-treated car lumber. Such service is free. Write, wire or phone Mr. R. H. Bescher, Manager, Technical Department, Orrville, Ohio.



KOPPERS PRESSURE-TREATED WOOD

KOPPERS COMPANY, INC. • Pittsburgh 19, Pa.



More Users buy more A-S-F

Ride-Control Trucks than all other
Trucks combined... because Ride-Control®
is smooth-riding, long-lasting ---
cuts operating costs!

American Steel Foundries

Mint Mark of Fine Products

Continuous Improvement for over half a century



Many important improvements in Westinghouse Friction Draft Gears have been made because of the continuous Research, Laboratory and Service Tests carried on for more than 50 years!

Result—longer life and lower maintenance cost for cars—and for Draft Gears too.

More than 98% of the Cars in Freight Carrying Service are A.A.R. Construction, and Over 96% have Friction Draft Gears.

The shock-absorbing capacity of the A.A.R. Friction Draft Gears in service is sufficient to protect the 4% of cars not equipped with Friction Draft Gears.

**Cardwell Westinghouse Co., Chicago
Canadian Cardwell Co., Ltd., Montreal**

THE BIG 89% TELLS YOU WHY A YALE ELECTRIC TRUCK IS YOUR BEST BUY

**89% of the Yale Electric Trucks sold today
are bought by previous users... so satisfied
with Yale performance and Yale economy
that Yale is their choice again.**

• Seeing that extraordinary record—you'll say these must be extraordinary trucks. And they are!

They bring to your materials handling problems new shortcuts—new savings in man-hours—new opportunities to answer today's stepped up demands for faster deliveries.

In many businesses, it's only a matter of months before Yale Electric Trucks have paid back the initial investment—and in their long years of service they pay for themselves many times over.

Rugged Yale quality—built into every part—explains the service these trucks give even in the toughest jobs... even when working on round-the-clock schedules that would knock out trucks of less durable construction.

Ask for complete details about Yale Electric Trucks—and their industry-wide record of satisfied users.

YALE & TOWNE

The Yale & Towne Manufacturing Co., Philadelphia 15, Pa.

YALE is a registered trade mark of the Yale & Towne Manufacturing Co.



SEND THIS COUPON TODAY

**The Yale & Towne Manufacturing Co., Dept. 489
Roosevelt Boulevard & Haldeman Ave., Philadelphia 15, Pa.**

I am interested in cutting my materials handling costs.

Please have your local representative call on me.
 Please send me free detailed literature.

Name _____
Company _____

Street _____ City _____ State _____

In Canada write: The Yale & Towne Manufacturing Company, St. Catharines, Ontario

YALE GAS AND ELECTRIC INDUSTRIAL TRUCKS • YALE WORKSAVERS • YALE HAND TRUCKS • YALE HAND AND ELECTRIC HOISTS

Check the facts and you'll see why

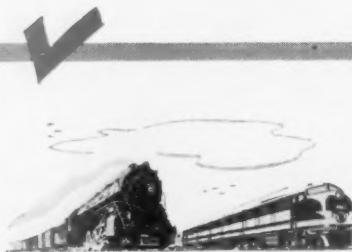
AAR SOLID BEARINGS

are best for rolling stock



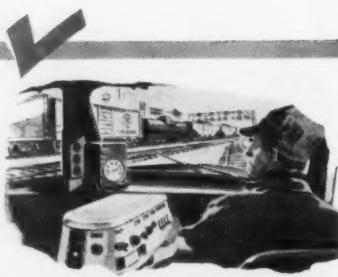
1. GREATER PROTECTION FOR LADING

With "free-floating" AAR solid bearings, lateral shocks are flexibly controlled—not rigidly opposed. Lading gets the smoothest ride on any standard freight car truck.



2. UNRESTRICTED AS TO SPEED AND LOAD

You can take the heaviest loads—make the fastest schedules. Aside from roadbed and traffic conditions, axle size and strength are the only limitations on speed and load when cars are solid bearing equipped.



3. LOWEST ACCELERATING AND RUNNING RESISTANCE

Solid bearings glide on an oil film—like skaters on ice. Identical tests prove they require up to 33% less power to make a run at sub-zero temperatures.



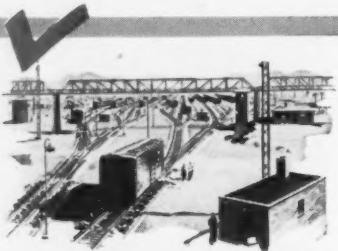
4. LIGHTEST WEIGHT

Solid bearing assemblies average 50 tons less dead weight for each 100 cars in movement—put the maximum tractive effort of locomotives to the business of moving goods.



5. UNEQUALLED PERFORMANCE AT HIGH SPEEDS

All the high-speed over-nighters ride on solid bearings—with service records up to 42 million car miles without a heating.



6. INTERCHANGE MADE EASY

Simple, dependable, economical, safe—solid bearings make cars equally at home on any railroad, anywhere, any time.



7. MORE TON MILES PER HOUR AT LOWEST COST

Lowest Bearing Cost

Save 25% on initial car cost—four cars for the price of three.

Lowest Fuel Cost

Minimum pounds-per-ton resistance over the whole run—and many tons less dead weight per train.

Lowest Cost for Maintenance

No special equipment, no excessive standby inventories, no skilled labor.

Be sure to get your free copy of "The Facts About AAR Solid Journal Bearings"—20 full pages of simplified bearing data that's fundamental to train operation. Just write a post card or letter to Magnus Metal Corporation, 111 Broadway, New York 6, N.Y., or 80 E. Jackson Blvd., Chicago 4, Ill.

MAGNUS METAL CORPORATION
Subsidiary of NATIONAL LEAD COMPANY



THE PUBLIC MUST BE SHOWN HOW RATE REGULATION HAS FAILED

Railroad management and investors are discouraged and alarmed by the decision of the Interstate Commerce Commission in Ex Parte 175. There is more alarm than discouragement, and the alarm arises from the fact that the Interstate Commerce Commission, as presently constituted, seems determined to keep the railroads poor; and from the fact that the commission's concept of the profit system is dangerously inadequate.

The commission seems to be fearful lest the railroads become profitable. That fear was exemplified by the commission's action back in 1943, when it suspended the Ex Parte 148 increases some fourteen months after they were effective. Ever since that time the commission, by its decisions and by the exercise of its suspension power, has given every indication that it will not permit the railroads to earn high profits based on high traffic volume.

Rather, it seems constantly to hope that high volume will provide just enough to enable the railroads to keep their heads barely above water. No great economic wisdom is required to know that every business operating under our capitalistic system must earn high profits when business volume is high; otherwise business cannot weather the storms of adversity that are bound to beset us from time to time. Nevertheless, the Interstate Commerce Commission steadfastly refuses to accept this fundamental concept of the profit system.

What Motivates Commission?

What is it that actuates the Interstate Commerce Commission in holding down railroad profits when business is good? Certainly it cannot be the fear that the railroads will squander those profits or pay them out in improvident dividends. The record shows that railroad management has been diligent to use profits to reduce the still heavy indebtedness and to plow back such

earnings as are available into the properties. The railroads have consistently improved their efficiency. So, what is the answer to the commission's failure to carry out the declaration of policy in the Interstate Commerce Act?

No doubt many changes are desirable in the Interstate Commerce Act, but the act as it now stands gives the commission sufficiently broad powers to enable the railroad industry to be profitable. Is it necessary that the Congress say to the commission that it shall allow rates and charges sufficient to attract equity capital and to maintain credit? It would seem that under our capitalistic profit system those objectives are so fundamental that a specific directive should not be required. In the field of public utilities, the states and the courts have recognized the necessity for a rate of return sufficient to provide good service, to make improvements, and to maintain credit.

Fearful of Competition

It may be that the Interstate Commerce Commission is too fearful of the effect of rates on the volume of railroad traffic in view of the competition from motor trucks, buses, air lines and waterways. True, the Interstate Commerce Act requires the Interstate Commerce Commission to give consideration to this factor, but certainly when we have been going through a period of almost ten years of high production and volume, and when the railroads are the principal carriers of goods, there would seem to be no reason for the commission to be too much concerned about the effect of rates on volume. Why not let it be managerial responsibility to worry about this phase of the matter?

In the Ex Parte 175 proceeding it was shown that if the railroads were granted the full 15 per cent increase in freight rates asked for, they would by and large

still not be able to earn anywhere near a 6 per cent return, and, with a few individual exceptions, would not be subject to excess profits taxes. So again the question recurs: What actuates the commission in its reasoning?

The Interstate Commerce Commission has a reputation to defend. Throughout a great many years it has been—and probably still is—one of the abler government agencies; but there is enough evidence to warrant a strong suspicion that the long-haired boys in the various government departments who always intervene in these rate cases have scared the Interstate Commerce Commission. What business is it of these government agencies, anyhow, to intervene in a proceeding before the Interstate Commerce Commission? The commission is an agency of the Congress, with the duty to protect the public interest. Why, then, should a lot of government agencies seek to prevent the railroads from getting reasonable earnings, when their credit is already so seriously impaired, and when other industries have all raised their prices ahead of the railroads, and when railroads are already the victims of inflation and not the cause?

Challenge to Management

This situation confronts railroad management with a challenge as great as any it has ever faced. Management has, so far, failed to arouse the public to the dangers inherent in the railroad situation; and it has failed to convince the Interstate Commerce Commission of the means required to operate and maintain the railroads as a dynamic industry. It behooves railroad management in the interest of the public, of the investors in railroad securities, and of railroad employees, to discard its old methods; to adopt new, forceful and dynamic methods that will bring about a reversal in the thinking of the American people, of the Congress, state legislatures, the regulatory bodies, and the users of railroad service. Quite likely the job might best be given to a committee of railroad presidents, lending the prestige of their personal integrity to the movement, who would fortify themselves with the facts and lay this serious problem before the President of the United States, the representatives in Congress, the secretary of commerce and the Interstate Commerce Commission—and then carry the same message to the public in a broad program of popular education. No more important duty or opportunity faces railroad management today.

One Hour On Our Railroads

One trouble with statistics concerning so great an enterprise as the American railroads is that they are so big they reach astronomical proportions. So, for a change, it's a good idea to break the figures down, and use them to describe what the railroads do in just one, single, sixty-minute hour.

During that hour, more than 1,000 trains leave their starting terminals and an equal number arrive at destinations. In that same hour, the railroads will handle nearly 17,000 express shipments and 1,300,000 pounds of mail. They will receive for shipment 4,200 carloads of freight and deliver

POOLING OF L.C.L.

Pooling of less-carload traffic, with the twin objectives of improving service to shippers and cutting handling costs, is much in the limelight these days. While the larger eastern l.c.l. carriers—with a bow in the direction of the Shippers Advisory Boards—are taking the first steps in making their own pooling arrangements, shippers in Connecticut's Naugatuck Valley, working in conjunction with the New York, New Haven & Hartford, already have worked out successfully the essentials of their own method of pooling, known as the "Griffin Plan" (see page 52, this issue). No one, apparently, seriously doubts that ultimately the results of pooling will benefit both the railroads and their patrons. Nevertheless, some railroad men are known to oppose the present—and any future—Griffin plan, mainly because it may divert business from their own railroads.

Basically, of course, both the Griffin plan and the pooling plan being discussed by the eastern carriers have the same objectives. Aside from the fact that one pooling arrangement has been put into effect by the shippers, while the railroads themselves will set up the other, there is only one *fundamental* difference between the two plans, i.e., where the present Griffin plan calls for routing via the best (performing) service route between any two given points, the railroads' plan apparently contemplates no such arrangements where supposedly competitive service is provided by two or more carriers, or groups of carriers. Assuming that the shippers are sincere when asking for improved l.c.l. service, in all probability, traffic will eventually gravitate to the best service routes.

At least as far as the shippers participating in the present Griffin plan are concerned, there is a willingness to split the available tonnage destined to competitive points among carriers whose service is equally good. Any carrier losing business, therefore, as long as the Griffin plan is administered properly, will do so only because it is not equalling the best service available to points served by it. (This is evident, we think, from the number of A.B.C. routes, not generally considered good, service-wise, in the guide put out by the Naugatuck Valley shippers.) Since it is likely that other "Griffin plans" soon will be in effect, probably before anything concrete comes from the efforts of the eastern carriers, it seems obvious that good, dependable service will get some railroads increased l.c.l. business, not all of which will be taken away from other railroads.

4,200 other carloads. On the financial side—and we're still dealing with just one brief hour—the lines will pay out about \$100,000 for federal, state, and local taxes, more than \$200,000 for operating supplies, and more than \$500,000 in wages.

This goes on 24 hours a day, 365 days a year. It is the measure of the industry's service to the country which supports it. *The other commercial carriers have their place, but, judged by the magnitude of the job each does, the railroads dwarf them as an elephant dwarfs a rabbit. In peace or war, the major transportation of this country is accomplished by the iron horse running on steel rails.*—*Alexandria (La) TOWN TALK.*



NEWS OF THE RAILROAD WORLD



Baxter Heads Tariff Study Group

Charles S. Baxter has been appointed chairman of the Railroads' Tariff Research Group, which the carriers have established to do a full-time job of studying ways and means of simplifying and otherwise improving tariffs. A former assistant director of the Interstate Commerce Commission's Bureau of Traffic, Mr. Baxter has served for the past seven months as information officer of the Defense Transport Administration, and in a staff advisory capacity to D.T.A. Administrator James K. Knudson.

In addition to Chairman Baxter, the research group will have two other members. One of them is George W. Lupton, Jr., of Los Angeles, Calif., an attorney and researcher who has recently been consultant to the United States Air Force at Dayton, Ohio. The third member of the group will be appointed "shortly," according to the railroads' August 29 statement which announced the Baxter and Lupton appointments and said that the group would be "activated" September 1 with headquarters in the Transportation Building, Washington 6, D. C.

This announcement was made by Fred Carpi, traffic vice-president of the Pennsylvania, who is chairman of the railroads' Administrative Committee under the direction of which the research group will operate. Plans for launching the research program had been announced previously by chairmen of the railroad regional traffic associations and by Edward F. Lacey, executive secretary of the National Industrial Traffic League (*Railway Age* of August 6, page 44).

Mr. Lacey's announcement noted that the research idea had been sponsored by the league's committee on rate construction and tariffs, which "will collaborate with the rail group" and participate in "periodic joint meetings as the occasion requires." John W. Peters, traffic manager of the Delco-Remy Division of General Motors Corporation, is chairman of the league's committee.

The research group "is calling upon everyone interested in tariffs and tariff reform to send in his suggestions," Mr. Carpi's August 29 announcement said.

Independent Activity

"The research project," it added, "is an independent activity of the railroads and the new organization is not affiliated with the Association of American Railroads. The group will operate under the direction of an administrative committee of 12 railroad traffic executives and with the advice and counsel of a cooperating committee from the National Industrial Traffic League."

Mr. Baxter is 45 years old. He was born in Montgomery, Ala., and educated in the public schools of that city. He began his career in the field of traffic and transportation in 1923, as a clerk in the Louisville & Nashville's general freight office at Montgomery. He was transferred to Louisville, Ky., in 1927, and he left the L. & N. later in that year to enter industrial traffic work.

In the latter capacity, Mr. Baxter served, first, with the W. P. Brown & Sons Lumber Company of Louisville, as traffic manager, and then as freight

traffic analyst for the Republic Steel Corporation at Cleveland, Ohio. He was in military service from February 1943, until September 1945, having been assigned to the Traffic Division of the Army Air Forces, Washington, D. C., headquarters, as chief of the Rail and Highway Traffic Branch. Mr. Baxter had attained the rank of major at the time of his discharge from military service.

With I.C.C. Two Years

He returned to his former position with Republic Steel, remaining until November 1946, when he became traffic manager of the Lockheed Aircraft Corporation at Burbank, Calif. Mr. Baxter's service as assistant director of the I.C.C.'s Bureau of Traffic began on February 7, 1949, and continued until January 25, 1951, when he became D.T.A.'s information officer.

Mr. Lupton is 50 years old. He was educated at the University of California and Harvard Law School. From 1926 to 1941, he was engaged in the private practice of law and as local attorney for the Atchison, Topeka & Santa Fe at San Francisco, Calif. During the past 10 years he has served as research consultant to Douglas Aircraft Company, the Santa Fe, and the Chicago, Milwaukee, St. Paul & Pacific.

Meanwhile, Mr. Lupton served from January 1946, until April 1948, as operating head of Santa Fe Skyways, a Santa Fe subsidiary, which formerly operated a transcontinental air freight service. He then became a senior associate of the New York firm of C. A. Rheinstrom, Inc., consultants specializing in air transport. He has been consultant to the Air Force at Dayton since last May.

Fast Write-Offs Banned by I.C.C.

Railroad reports to the Interstate Commerce Commission can no longer reflect accelerated amortization of equipment and facilities acquired to handle defense-traffic loads—"unless it can be shown definitely that the facility will have no use in transportation service after the emergency."

A commission notice, dated August 20 and made public August 24, announced this new policy which applies to all carriers subject to commission jurisdiction. A second notice, applying specifically to the railroads, announced commission plans to require a restatement of railroad accounts to eliminate accelerated amortization recorded since December 31, 1949.

Both notices advised interested parties that they might file written presentations with respect to the matter on or before September 27. The general notice read in part as follows:

"The commission, by Division 1, having under consideration the mat-

ter of emergency facilities, the cost of which may be amortized over a 60-month period for federal income tax purposes under Section 124(a) of the Internal Revenue Code. . . finds no justification for charges to carrier operating expenses representing the service loss of any such facility, in excess of those computed at prescribed or accepted depreciation rates, unless it can be shown definitely that the facility will have no use in transportation service after the emergency.

"All carriers subject to accounting regulations prescribed by the commission will be required to conform to this policy, which will be given effect by cancellation of any provisions which are contrary in the accounting regulations now in effect for the different types of carrier. . ."

Following through on the latter basis in the notice applying to railroads, the commission announced that it had "approved" the cancellation, ef-

fective January 1, 1952, of Account 270½, Road—Amortization of defense Projects, and Account 331½, Equipment—Amortization of Defense Projects.

The notice went on to announce the retroactive application of the new policy, saying that the railroads "will be required to reverse charges to accounts 270½ and 331½ applicable to those emergency facilities acquired subsequent to December 31, 1949, and certified under Section 124(a) of the International Revenue Code."

"Upon application," the notice continued, "any steam railroad will be granted authority to provide for accelerated depreciation for any facility that will not be used in transportation service after the present emergency period."

The action taken by the commission was opposed by what has been described as an "overwhelming" majority of the railroad accounting officers who participated in discussions of the matter with members of the commis-
(Continued on page 40)

NEW SERVICES AND PUBLICATIONS OF INTEREST TO SHIPPERS

AKRON, CANTON & YOUNGSTOWN—Industrial development department has just released a 22-page brochure, complete with maps and photographs, on plant site locations in Akron, Ohio, Medina and Plymouth. A six-page section on taxes in Ohio is part of the brochure.

ASSOCIATION OF AMERICAN RAILROADS (Freight Claim Division)—Loss and damage prevention "Bulletin No. 1099," on panel resistance of the 46-oz. (juice) can in relation to beading. Comes out for the deep, wide-beaded can, "which does not increase the cost of the can to the canner," but which is "135 to 150 per cent more panel resistant than the plain body can."

BALTIMORE & OHIO—Industrial development department has just issued a 105-page book entitled, "High Calcium Limestone in the Areas Served by the Baltimore and Ohio Railroad." (See page 61.)

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC—"L.C.L. Merchandise Schedules."

DELAWARE, LACKAWANNA & WESTERN—Commercial development department has issued an illustrated brochure on 2,000 acres of developed industrial area at Baldwinsville, N. Y., about 11 miles from Syracuse. Contains details on taxes, labor supply, transportation, housing and commercial building available.

ERIE—Revised freight train schedules, summer season 1951.

NASHVILLE, CHATTANOOGA & ST. LOUIS—Industrial division of traffic department has released an illustrated bulletin describing its 225-acre development at Atlanta, Ga., known as the Southland Industrial Center, just four miles from the downtown center of the city, and adjoining the railroad's Hills Park yard. The development is zoned so that warehouse and factory areas are separated.

NEW YORK CENTRAL—Has made the following changes in l.c.l. car lines since issuing Supplement No. 1 (June 15) to its l.c.l. schedules:

Car lines discontinued:

Black Rock, N. Y., to Syracuse ("Pacemaker"); Cleveland to Barclay street (New York) ("Pacemaker"); E. St. Louis, Ill., to Columbus, Ohio, Toledo, Detroit, 33rd street, New York, and Springfield, Mass.; Peoria, Ill., to Danville, Ill.; Van Wert, Ohio, to Bryan, Mich., to Jackson, Mich. (Way car); and to Cincinnati; Utica, N. Y., to Bay City, Mich., Kalamazoo, Mich., and Burr Oak, Ill. (C. R. I. & P.); Utica, Mich., to Detroit (Way car); West Haverstraw, N. Y., to Utica; and Wellsboro, Pa., to Newberry Jct.

New car lines:

Alsen, N. Y., to Utica (Tri-weekly); Black Rock, N. Y., to Utica ("Pacemaker"); Wellsboro, Pa., to Syracuse, N. Y.; Utica, N. Y., to Corning; Pittsburgh to Washington, D. C. (B. & O.); Hornell, N. Y. (Erie); Binghamton, N. Y. (D. L. & W.) (Tri-weekly); Baltimore (W.M.); Neville Island (P.C. & Y.); Library (M.R.R.) (Tri-weekly); Manchester (N.Y.) Transfer (L.V.) (Tri-weekly); and St. Louis (C.R.I. & P.).

New truck routes:

Van Wert, Ohio, to Bryan, returning to Van Wert, thence south to Coldwater, returning to Van Wert, serving all intermediate stations; Chicago to Hammond, Ind., Gary, South Bend, Mishawaka and Elkhart; Syracuse, N. Y., to Camden, Camden to Altmar, Blossdale, McConnellsburg, Westdale, and Williamstown; Syracuse to Newark and Wayport; and Syracuse to Lyons and Sodus.

READING—Industrial development department has released a circular indicating that 17 industrial properties, located in 14 different New Jersey and Pennsylvania towns and cities, are for sale or lease. Square footage of floor space varies from 12,600 to 350,000.

SEABOARD AIR LINE—"Less Carload Merchandise Freight Service."

VIRGINIAN—"Scheduled L.C.L. Merchandise Cars."



"SHINING RAILS"

"Shining Rails," a new full-color, 20-minute motion picture, depicting the part electricity plays in modern railroading, and portraying railroad progress during the past 25 years, has been announced by the General Electric Company. The 16-mm. sound production, filmed on locations from California to New Jersey, tells the story of major developments contributing to comfort, speed and safety of passenger travel, and to improved service for freight movement.

Featuring electrification of railroads during the past two decades, the movie describes development of diesel-electric power, starting with the first successful diesel-electric placed on the rails by G.E. in 1924. Also, it tells the progress story of railroad communications, modern materials handling, centralized traffic control, safety equipment, and electrification of passenger cars, dining cars and lounges.

"Shining Rails" was produced for G.E. by Academy Productions, Inc., of Hollywood, under direction of Richard Lyford, and the technical supervision of G.E.'s Transportation division. Designed to show to the public advances in modern railroading practices, the movie will be available for loan at G.E. apparatus sales offices throughout the country, or it may be purchased at cost by organizations desiring prints for permanent use. It is a sequel to "Railroadin'," an



Alco-G.E. film produced in 1940 which met with high public acclaim.

As a symbol of the progressiveness of the nation's railroads, the new G.E. gas-turbine electric locomotive, first in the United States, is shown in action in the movie.

The accompanying pictures are all reproduced from the film.



sion's staff. While that action will not end accelerated-amortization accounting for income tax purposes, the railroad officers are fearful that it may make more difficult the obtaining of the required certificates of necessity from the Defense Production Administration. Defense Mobilizer Charles E. Wilson recently ordered a 60-day moratorium on the granting of such certificates (*Railway Age* of August 20, page 60).

Railroad accounting officers have also argued that accelerated amortization should be regarded as an accepted accounting procedure in times of emergency—not as a tax-relief measure. Accelerated-amortization accounting by the railroads was permitted by the I.C.C. during World War II.

Other railroad arguments have contended that the elimination of accelerated amortization will result in "serious" overstatements of railroad assets and earnings. It has also been pointed out that the commission's action will have the effect of increasing taxes paid by railroads in states where levies are based on earnings as stated in reports to the commission.

Dahill Heads Group to Find Substitute Loading Material

E. J. Dahill, chief engineer of the Freight Loading and Container Section of the Association of American Railroads, has been appointed chairman of a National Security Industrial Association committee which is seeking substitutes for materials used in loading and bracing military shipments by rail. Since present loading and bracing materials could become "impossible" to obtain for these purposes, the N.S.I.A. says, "what substitute or returnable materials, non-critical

in nature, would be practicable and desirable for this purpose?"

This problem was presented to N.S.I.A. by the Military Traffic Service of the Department of Defense. Accordingly, H. H. Loeffler, chairman of N.S.I.A.'s packaging advisory committee, appointed Mr. Dahill, also a member of the packaging advisory committee, to head up a task committee of eight men to study this problem.

Other members of the committee are: A. P. Kivlin, superintendent, freight loss and damage prevention, New York, New Haven & Hartford; C. R. Gustafson, chief engineer, container and materials handling, American Radiator & Standard Sanitary Corp.; Len Mayrisch, manager, freight protection and station service, Southern Pacific; Neille Rowe, packaging engineer, Capehart-Farnsworth Corporation; C. E. Miller, packaging and loading engineer, United States Steel Company; T. A. Carlson, Forest Products Laboratory; and C. R. Anderson, assistant chief engineer, Freight Loading and Container Section, A. A. R.

N.S.I.A.'s announcement of the committee's formation says the group will welcome "suggestions from all sources as to materials which would serve satisfactorily the purpose as substitutes for scarce materials." Communications should be addressed to Chairman Dahill at 59 East Van Buren street, Chicago 5.

C.N., C.P. File Rate Equalization Plans

The Canadian National and the Canadian Pacific have filed with the Canadian Board of Transport Commissioners a voluminous study on freight-rate equalizations across Canada.



"NEARLY PAID FOR ITSELF IN SIX YEARS"—The Rock Island's modern research laboratory, built on Chicago's south side six years ago at a cost of \$350,000, has been saving the road \$50,000 annually through testing all materials and equipment purchased. At this rate the lab will have paid for itself in cost within another year. Built primarily to promote greater safety and

to guide the Rock Island in its purchases, the lab has also proved helpful to a number of suppliers whose products have been subject to tests. Present research is centering around paints and their "weatherability" for protection of bridges, buildings, switch stands, signs, etc. Recent topics of research include diesel locomotive oil filters, water softeners, light bulbs and steel rail

da. The study was made by the railways on instructions from the board as part of its general freight-rate inquiry. This investigation, aimed at general rate equalization, has been in progress more than three years. Public hearings in it are due to start September 10.

In their study, the railways outlined two alternate plans of rate equalization that might be put into effect. They indicated, however, that they do not subscribe to either plan and are submitting them only for consideration by the board. The plans are:

(1) A rate revision scheme based on recommendations of the Royal Commission on Transportation and legislation introduced in Parliament this summer, which would equalize rates right across the country, apart from certain specific exceptions; and

(2) A modification of that plan, to preserve certain existing rate relationships on traffic moving between eastern and western Canada.

"The railways are of the opinion that the second alternative would cause less disturbance to the rate relationships of the competing shippers," they said.

Basis of plan No. 1 is a highly technical revision of class rates, while maintaining present statutory preferences, including the low "Crow's Nest Pass" rates in the west. Generally, the effect would be that a commodity moving the same distance in any part of Canada would always pay the same amount in freight charges.

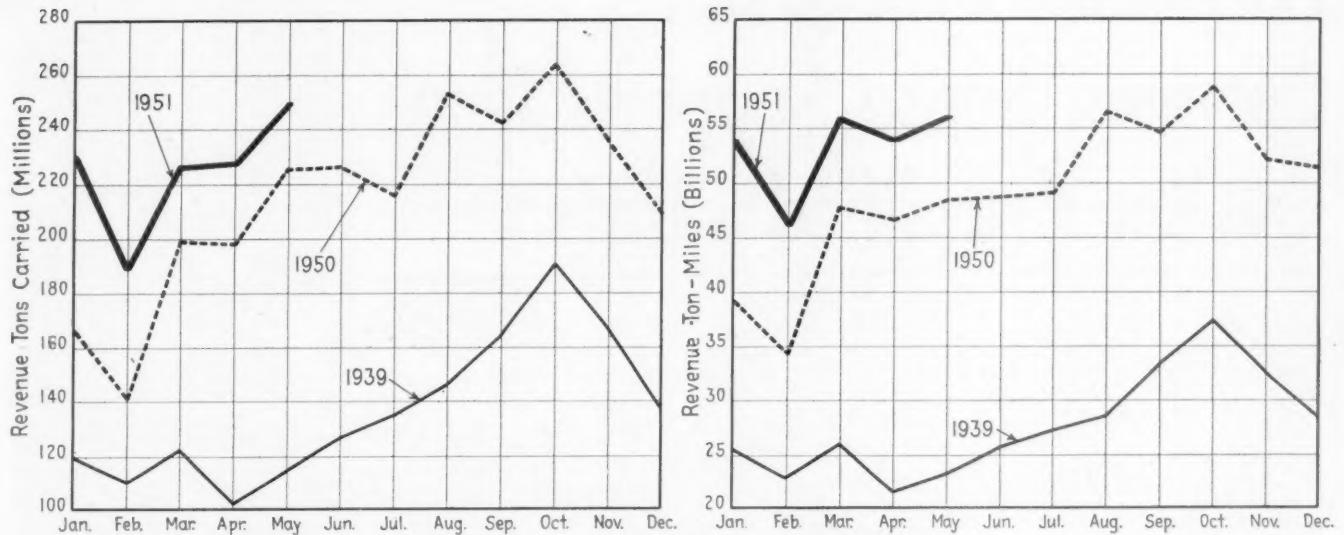
In presenting their modified plan, the railways said it might be found in the public interest to continue an existing system of arbitrary charges and rate groupings that have the effect of giving competing shippers within the same general areas the same charges on goods moving between east and west.

The railways emphasized that neither of the outlined plans could be anything more than the basis for a new rate structure. Other rates would have to be changed to conform to the pattern of whatever new setup was decided on for basic class rates. That would take at least six months.

The railways warned, too, of a possible threat to revenues of the C.P. from any equalization plan which reduced rate levels in the west and increased them in the east. "The level of any equalized scale of rates," they said, "must be designed to continue with as little change as possible the C.P.'s existing revenue position. . . If the level fails to do so. . . the result may be to require a readjustment of the level in a further revenue (rate increase) case."

Freight Car Loadings

Loadings of revenue freight in the week ended August 25 totaled 838,587 cars, the Association of American Railroads announced on August 30. This was an increase of 9,189 cars, or 1.1



REVENUE TONS AND REVENUE TON-MILES—1951 compared with 1939 and 1950

per cent, compared with the previous week; a decrease of 78 cars, or .01 per cent, compared with the corresponding week last year; and an increase of 91,376 cars, or 12.2 per cent, compared with the equivalent 1949 week.

Loadings of revenue freight for the week ended August 18 totaled 829,398 cars; the summary for that week, as compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS			
For the week ended Saturday, August 18			
District	1951	1950	1949
Eastern	137,562	148,657	127,570
Allegheny	171,288	171,421	140,586
Pocahontas	64,390	64,329	45,925
Southern	124,862	131,445	108,565
Northwestern	143,331	143,029	132,960
Central Western	125,070	129,863	117,735
Southwestern	62,895	62,496	57,874
Total Western Districts	331,296	335,388	308,569
Total All Roads	829,398	851,240	731,215
Commodities:			
Grain and grain products	53,144	52,594	50,670
Livestock	9,285	7,945	10,662
Coal	147,426	157,428	113,434
Coke	16,368	15,056	9,560
Forest products	49,871	50,784	40,498
Ore	92,975	81,561	69,241
Merchandise i.c.i.	74,992	89,056	91,663
Miscellaneous	385,337	396,816	345,487
August 18	829,398	851,240	731,215
August 11	809,354	847,708	728,029
August 4	813,366	837,430	716,863
July 28	819,875	845,011	724,044
July 21	804,570	830,076	718,516
Cumulative total			
33 weeks	25,361,667	23,439,531	23,675,253

In Canada.—Car loadings for the week ended August 18 totaled 82,953 cars, compared with 76,217 cars for the previous week and 83,817 cars for the corresponding week last year, according to the Dominion Bureau of Statistics.

Totals for Canada:	Revenue Cars Loaded	Total Cars Rec'd from Connections
August 18, 1951	82,953	32,744
August 19, 1950	83,817	33,492
Cumulative totals for Canada:		
August 18, 1951	2,611,358	1,149,900
August 19, 1950	2,422,533	1,026,209

Switch Manufacturers Want "Tailored" Price Regulation

The Office of Price Stabilization's Frog, Switch and Crossing Manufacturers Advisory Committee has recommended that a "tailored" pricing regulation be drafted for the industry. This was revealed in an O.P.S. press release which reported on an August 24 meeting of the committee with O.P.S. officials.

Products produced by the industry are now covered by Ceiling Price Regulation 30 (Machinery). As a result of the committee's recommendation, a subcommittee has been appointed to consider the "tailoring" proposal, and to meet with O.P.S. officials September 11 (tentative date).

Waybill Study

Another waybill study has been issued by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. It is statement No. 5133, Mileage Block Distribution of Traffic and Revenue by Commodity Class, Territorial Movement and Type Rate, Manufacturers and Miscellaneous, part II—All Terminations in 1950.

I.C.C. Approves Bulwinkle Pact of Illinois Railroads

Division 2 of the Interstate Commerce Commission has approved conditionally the rate-procedures agreement filed under section 5a of the Interstate Commerce Act by railroads which are members of the Illinois Freight Association. The case was docketed as Section 5a Application No. 21, and the Department of Justice was in its usual role of unsuccessful protestant.

Conditions imposed by the commission will require that notices of actions

with respect to classification matters (as well as those with respect to rates) be published "in a recognized traffic journal of national circulation"; and that there be included in the agreement provisions stipulating that notice of intention to permit the expiration of rates bearing expiration dates (which have been in effect for 15 months or longer) shall be placed on the public dockets of the committees.

Also, that there be eliminated from the agreement provisions which accord to committee chairman the right to refer, to the Traffic Executive Committee, actions or determinations taken by lower ranking committees; and that voting provisions be modified to provide that determinations made by a majority (instead of three-fourths) of the voting members present at meetings of any committee shall be deemed to be the individual determination of each member of such committee.

The latter provisions would not apply to actions relating to switching in the Chicago district and matters respecting sand, gravel and crushed stone.

Entry of an order implementing the commission's approval action was withheld, pending advice that the applicant roads assent to the conditions and have modified the agreement.

MORE NEWS ON PAGE 70

Additional general news appears on page 70 followed by regular news departments, which begin on the following pages:

Equipment & Supplies	80
Organizations	82
Abandonments	84
Supply Trade	86
Construction	88
Financial	88
Railway Officers	90

Commissioner Alldredge Says

Common Sense Supports Law's Call for Simplified Tariffs

Specially written for *Railway Age*
By J. HADEN ALLDREDGE
Member, Interstate Commerce Commission

The law requires that rates and charges of common carriers shall be plainly published in the form of tariffs so that the users of the services may know what they are supposed to pay and the conditions under which the services are to be rendered. The language of the statute in this respect is simple, its meaning clear, and its purpose definite and certain. Aside from the demands of the law, however, common sense and the enlightened self-interests of both the carriers and their patrons strongly support the same objective.

Controversies Costly

On the part of the carriers, the maintenance of good public relations calls for the avoidance of as many controversies as possible with respect to the prices to be paid for transportation services. Differences of opinion over this subject do not usually stop at the mere engendering of bad feelings; they give rise to expense—sometimes very substantial expense, in the aggregate—in the adjustment of claims which not infrequently involve litigation, and in extra costs of other kinds. Patrons, too, are not only annoyed but are required to bear unnecessary expense on their own account in the protection of their interests. The government itself cannot escape an extra burden of expense in adjusting disputes and arbitrating controversies that flow from this source.

Simplification Not Easy

The objective of plain and simple tariff publication is not entirely easy of attainment so far as freight tariffs are concerned. The country is broad and expansive; the transportation network is extensive, and commerce is constantly growing in volume, in the number of commodities entering into the channels of trade, and in the radii of the distribution of commodities. Competition for business is, and always has been, keen and there are various currents and cross-currents in the flow of traffic. To provide a system of rates and charges to operate in such an environment is always fraught with difficulties and the necessity of making intricate adjustments. It is the function of tariffs to translate all the complexities inherent in a rate structure into readable and understandable terms—in other words, to catalogue the system of prices for transportation services. In recent years emergency rate increases have added numerous complications to the bibliography of freight tariffs. The result has been to create and point up an acute problem in this field.

Carriers, shippers, and the staff of the Interstate Commerce Commission have come to realize that special efforts will be necessary to extricate the tariff-publishing process from the very undesirable situation into which it has drifted by force of circumstances. Plans are being perfected to bring to bear on this problem the combined talents of specialists, with considerable promise of success. The Bureau of Traffic of the commission some months ago brought to the attention of the carriers the unsatisfactory condition of freight tariffs generally. Controversies over tariff interpretations had been increasing for some years. They had naturally focused attention on many of the imperfections which exist in tariff publications.

The "Major Difficulties"

The major difficulties may be summarized as follows:

- (1) Excessive number of tariff publications.
- (2) Over-supplementation of basic tariffs.
- (3) Inaccurate, incomplete and conflicting descriptions of commodities or articles of freight.
- (4) Lack of definiteness and certainty in the commercial processing permitted under transit tariffs.
- (5) Indefiniteness in routing rules of line-haul tariffs.
- (6) Lack of clarity and certainty in the scope and purpose of terminal tariffs.
- (7) Lack of standardization in the general make-up and format of tariffs.

Illustrations of the deficiencies in all these different categories would extend this discussion beyond reasonable limits. Examples of simple descriptive terms which have been creating difficulty for many years, when not completely or accurately defined, are to be found in such tariff nomenclature as "parts," "finished," "unfinished," "chemicals," "machinery," "electrical appliances," and "batts."

Since the inception of World War II there have been many newcomers to the various classes of traffic—such as articles of food, plastics, chemical and metallurgical products, and synthetic fabrics—that have not been completely defined or differentiated. The same is true of building-construction and paving materials. In the opera-

An I.C.C. commissioner since 1939, J. Haden Alldredge's previous experience included 12 years of industrial traffic management, 11 years as a member of the Alabama Public Service Commission's staff, and five years with the Tennessee Valley Authority, where he served in turn as transportation economist and director of the Commerce Department. Rate and tariff matters have continued among Mr. Alldredge's special interests since he became a member of the I.C.C.



tion of transit tariffs it is frequently important to specify the commercial or manufacturing processes to which the products may be subjected at the transit points, and controversies arise under the existing state of tariffs of this type.

The Railroad Research Program

It seemed necessary for the carriers to set up a special research organization to study all of these problems and to attempt to work out solutions by intense concentration on the subject before any substantial improvement could be expected in the form and substance of freight tariffs. The National Industrial Traffic League has insisted upon this approach for some time. So has the Bureau of Traffic of the commission. The rail carriers have agreed and have recently set up such a group, supported by a substantial budget. The chairman of this group, Charles S. Baxter, has furnished the writer with an outline of his project, with permission to append it to this discussion. The letter follows:

You told Mr. Fred Carpi that you would prepare an article for a periodical on the subject of tariff simplification and asked him to supply you with some background information on the approach recently decided upon by the railroads for attacking the problem of complex tariffs. He has requested me to work it up for you.

The sorry state and generally complex nature of railroad freight tariffs has long been a burning issue with the shippers of the country. The situation has grown worse with the effectuation of the several general increases and the interim No. 28300 adjustment, and shippers, through the N.I.T. League, have been more vigorously demanding relief and improvement. Clerk-time per rate has increased four-fold, the shippers declare.

For some time the League Rate Construction and Tariffs Committee agitated the subject with the railroads' A.A.R. Tariff Committee and charged that the failure to secure relief stemmed from the fact that the A.A.R. Tariff Com-

mittee membership was made up of railroad traffic men and tariff publishing agents who are already overburdened with their regular pursuits and do not have the time to give tariff reform the undivided study and attention necessary to satisfactory results.

The league committee then arranged a series of conferences with leading railroad traffic executives and out of these shipper-carrier meetings emerged the decision to set up an organization to devote all of its time to research in the freight tariff field. (Your letter to the three chairmen had much to do with bringing these discussions to the point of decision.)

The organization—named the "Railroads' Tariff Research Group"—will be composed of a chairman and two members and a small stenographic force. It will be established and open for business on September 1, 1951. While it will be domiciled in the Transportation Building in Washington, it will not be affiliated with the Association of American Railroads.

The group will be financed 100 per cent by the Class I railroads of the United States, which have authorized for this work an annual budget of \$100,000. The work of the group will be supervised by an Administrative Committee of railroad executives—three chief traffic officers from each of the three major territories plus the three territorial chairmen—and closely observed by a cooperating committee from the N.I.T. League. The shipper-carrier partnership theme will be reflected in all the research group's activities and programs.

The group and its two guiding committees recognize the great interest and responsibility of the commission in all phases of this subject. It will be in frequent touch with you and officials of the Bureau of Traffic. At the luncheon meeting on August 1 all of us were much pleased to have your offer to serve as the "door" through which the commission will be kept informed of our activity and entertain our proposals for changes.

The individual group members will approach the problem without inhibitions, recognizing that some new concepts—perhaps some revolutionary ones—are necessary. The public is being invited to submit suggestions and all received will be carefully analyzed.



Timber, as well as finished lumber and forest products, represents an important source of traffic and revenues to the western lines of the Milwaukee. This log train, pictured

near Kapowsin, Wash., with Mt. Rainier in the background, is taking logs from the Douglas fir country in the Winston Creek area

The Milwaukee Plants a Crop Of Future Traffic

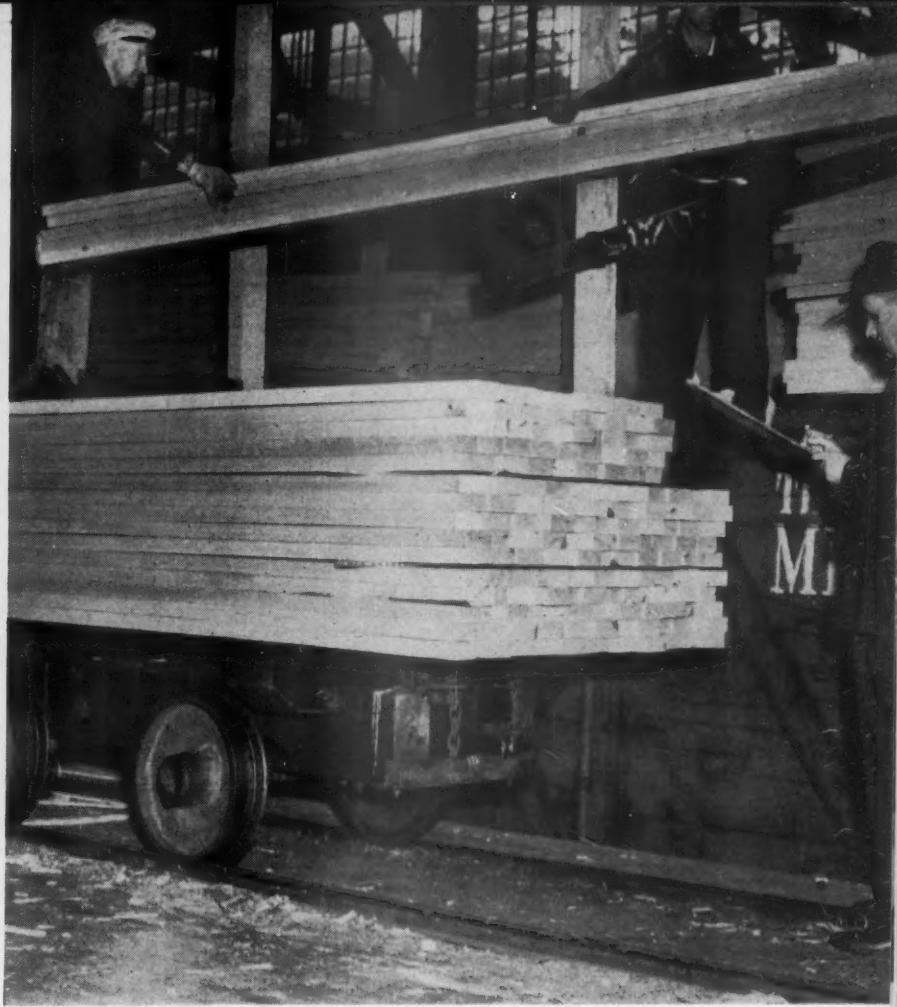
The retreating stand of mature timber in the Pacific Northwest has been a matter of prime concern to the Chicago, Milwaukee, St. Paul & Pacific because of its potential effect on important timber and forest products traffic. It has become increasingly difficult for sawmills, wood plants, and other forest products industries to obtain adequate timber for their needs. In order to insure itself against loss of traffic in lumber and related products, the Milwaukee has—with the establishment of its tree farm project—embarked on what is believed to be one of the earliest and largest reforestation projects undertaken by any railroad.

The road is fortunate in owning some 200,000 acres of forest land, situated in Idaho and Washington, some of which is in the very best areas for the growth of Douglas fir—the monarch of commercial timber. The ownership of this land dates back to 1905 when the Milwaukee Land Company, a wholly owned subsidiary organized for the purpose of buying land and subdividing it into lots for town sites along the lines of the railroad—which was then stretching its rails westward from Mobridge, S. D.—purchased timber lands in Montana, Idaho and Washington to encourage the establishment of wood-using industries along its lines in order to generate long-haul traffic to eastern points.

For many years, the policy of the company was to sell this land and timber as rapidly as industry could absorb it. For the past ten years, however, the Milwaukee



Left—The beginning of a harvest of fine old-growth Douglas fir. These trees make ideal timber because of their tall, clean trunks. Douglas fir seedlings do not grow well in the shade of the mature trees, so it is better forestry practice to log the land clear, then seed it for a new crop. The cut logs are taken to rail heads on log trucks. **Right**—Reced-



ing timber stands have placed a "squeeze" on users of timber and forest products as competition for the remaining stands increases. To assure industries along its line—and producers of important traffic—supplies of timber in the years to come, the Milwaukee is following approved forestry practices in planting logged-off land with young trees

Land Company—in common with other large timberholding interests—has retained ownership of its lands. Some of this Milwaukee-owned land contains immensely valuable stands of mature Douglas fir ranging in age from 80 years to 500. The remaining land has been "logged off"—meaning that all the valuable timber has been cut. And once "logged off," the land was allowed to go "back to nature."

There was Little Foresight

On some of the "old logging works" in the Pacific Northwest the Douglas firs seeded themselves and second growth trees from 10 to 50 years old now cover the land. However, this is not true in all cases because many of the "old works" either have grown up to hardwood species which are valueless as timber, have not grown anything at all except small brush, or have been swept by repeated fires so that the land is still black and bare. This condition—which, until comparatively recent times, was common on much timber land—was the result of indifference and lack of foresight. Few logging operators or timber owners had the foresight to make specific provision for reforestation. And in most places, fire protection on cut-over land had been given only slight attention. By and large, the only practicing forester was Mother Nature, and as often as not she wasn't given half a chance.

The unremitting efforts of far-seeing members of the timber industry—through their tree farm movement—and of the various state forestry departments and the

U. S. Forest Service have effected a change in this trend. Although everything forestrywise is not yet shipshape, there has been a marked change in the care which is being given good forest land.

In keeping with this new outlook, and because of the steadily tightening "squeeze" affecting those industries along its lines which do not own their own timber lands, the Milwaukee has undertaken an extensive reforestation and land management program on its own timber lands for the purpose of providing a constant source of supply for the wood-using industries along its lines. An important byproduct, of course, is the steady source of traffic which this timber—and the finished products made from it—will provide for the Milwaukee in years to come.

Scattered throughout the western part of the state of Washington are limited natural areas known to foresters as "Site I" for Douglas fir—meaning the very best ground and location for the growth of this monarch of the forests. These trees live to be 400 to 600 years old, and occasionally grow to a height of 300 feet. They produce good clear lumber, ideal for a multitude of industrial and constructional uses. For this reason, Douglas fir is exceedingly valuable timber—a 100-year old stand carries a value of as much as \$1,000 an acre, uncut! On the basis of 100 years' growth, this represents an increase in value at the rate of \$10 per acre per year.

One of the elite "Site I" locations for the growth of Douglas fir is in the Winston Creek area of Lewis County, Washington—about 50 air-miles south of Tacoma. Surrounding the "Site I" locality is a large area

of "Site II" land, which is better than average forest land for the growth of Douglas fir. On Winston Creek the Milwaukee Land Company owns 10,000 acres of land—and adjacent to it, the Long-Bell Lumber Company has large holdings, some of which have been "logged-off," and some of which still have standing timber. This valuable land, once logged, obviously should not be allowed to remain unproductive for long. It is here that the Milwaukee has established its tree farm.

The Milwaukee Land Company and the Long-Bell Lumber Company—which have been doing business together for years—accordingly decided to undertake a cooperative reforestation project on 960 acres of adjacent holdings, the results of which will point toward future projects. Although a small percentage of vigorous young seedling trees had established themselves on the logged areas by natural seeding, the density of growth was below that desired. The ground was in good condition for seeding. Tree seed for the project was purchased from the seed plant of the South Olympic Tree Farm Company—a forest management organization protecting thousands of acres of young forests on the south end of the Olympic Peninsula, including some scattered Milwaukee Land Company holdings. A small portion of western red cedar and western hemlock was added to the Douglas fir seed to insure timber growth on areas not suitable for Douglas fir.

The Milwaukee is one member of a regionwide committee actively engaged in experimenting with and practical development of direct seeding. Other members are the Oregon State Board of Forestry—the organization which pioneered this work—the Crown-Zellerbach Corporation, Weyerhaeuser Timber Company, the U. S. Fish & Wildlife Service, and the U. S. Forest Service. In planning what is believed to be the first aerial seeding of forest land ever to be undertaken by any railroad in the nation, the Milwaukee benefitted from the combined experiences of the members of this committee.

The actual seeding took place on a quiet clear day last November when the seed was distributed over the ground by a helicopter moving at a ground speed of 45 m.p.h., at an average elevation of 200 feet over the ground. Milwaukee timber men with large yellow flags paced the terrain at right angles to the line of flight, and guided the helicopter pilot over parallel swaths. The area was cross-seeded, with the pilot first seeding on east-west swaths, and then on north-south swaths. In order to check the seed distribution, two other Milwaukee men moved 13 ft. square muslin sheets to various established positions, and counted the seeds which fell on the sheets. In addition, these unseeded plots are now being used as check points for comparison with nearby seeded plots.

The seeded areas will be watched carefully during the next few years, both to determine the success of this seeding project, and to protect the crop from possible damage. As the trees grow larger, they will be carefully thinned, taking out the weaker and leaving the larger stronger trees for growth to maturity. Fire trails and roads have been established, and the lands are being regularly patrolled and watched during forest-fire seasons to prevent the new crop from being destroyed by fire, the most ruthless enemy of the forests.

Long-Range Program

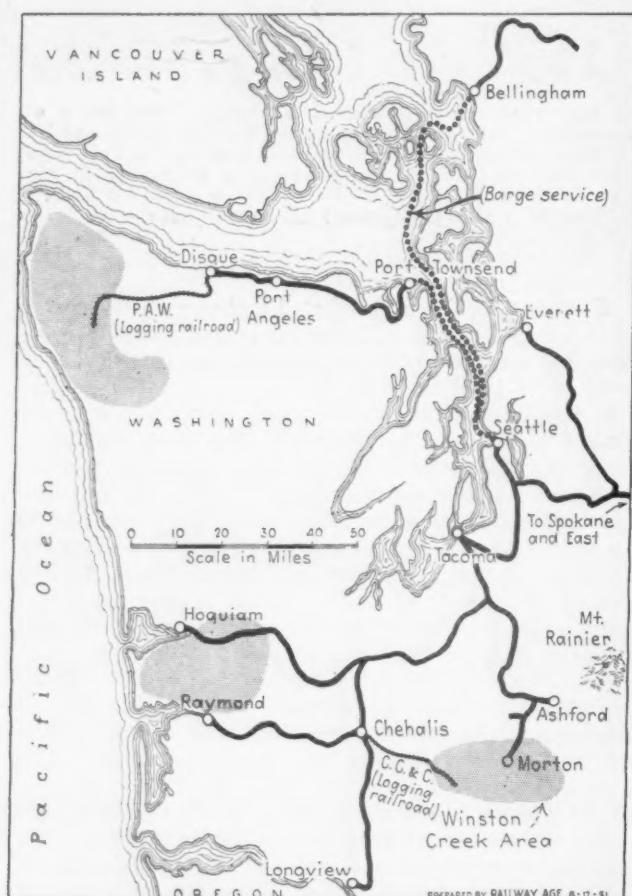
Reforestation is a long-range program—with the eventual benefits sometimes difficult to see in the press of current events. Nonetheless the Milwaukee, through its subsidiary land company, has established a policy of maintaining its present holdings and administering the timber harvest in such a way as to keep the lands continuously productive.

In addition to broadcast aerial seeding, for the past seven years the company has been leaving patches of timber on its Washington lands for use as "seed areas." These patches range in size from 2 to as high as 30 acres. In all cases they are located at higher elevations so that their seed will spread over as much of the surrounding area as possible. There is visible evidence of the success of this system in Winston Creek lands that were logged as long ago as 1944.

In Idaho, rather than leave patches of timber standing for "seed areas," scattered trees are left. Idaho soil seems to germinate conifer seedlings more rapidly, so this scatter system seems to be more effective.

The Milwaukee Land Company was one of the pioneers in establishing the present fire protection organizations in Washington and Idaho. These organizations, in addition to handling fire problems, also take a leading role in the control of insects and tree diseases.

The land is now in the care of Mother Nature, and if the elements at her command are benevolent, the Milwaukee land will soon be green with a timber crop that eventually will do its part to sustain the economy of the West, to support industries dependent on a regular supply of timber, and to provide long-haul freight for the railroad.



The shaded areas on this map show the general locations where the Milwaukee's land holdings in the state of Washington are concentrated, and how the road's lines reach important timber areas in the state. The two holdings on the coast do not present much of a reforestation problem because nature—aided and abetted by heavy fog and cloudy days—provides excellent growing conditions for hemlock. The Winston Creek area is at the lower right. The railroad also has two land-holding areas in Idaho.



Rock Island train No. 91 heading onto the cutoff line from the Union Pacific main track at Sandown, Colo.

How Rock Island Cutoff Speeds Transcontinental Traffic

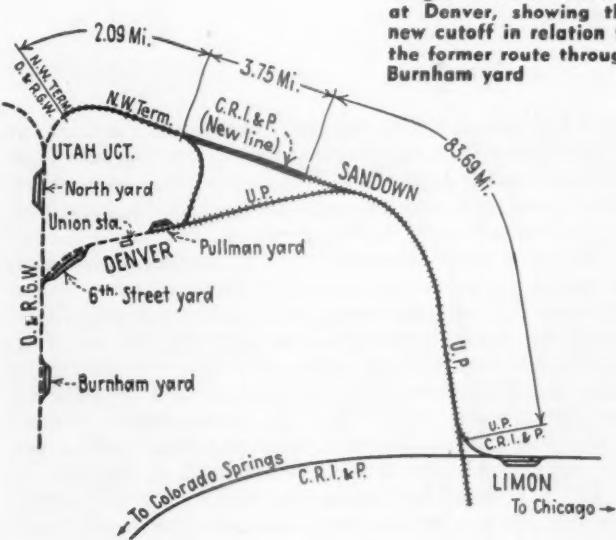
**New line at Denver avoids city congestion and speeds
interchange of freight with the D. & R. G. W.**

On February 1, the Chicago, Rock Island & Pacific placed in service a new cutoff route through Denver, Colo. This important improvement, built at a cost of more than \$2 million, is designed to place the so-called Denver Gateway route of the Rock Island and Denver & Rio Grande Western in a more favorable competitive position with other transcontinental routes with the hope of materially increasing its share of the heavy volume of traffic moving east and west, principally from and to the Pacific Coast and Intermountain territory.

Transcontinental traffic over the Denver Gateway route is interchanged between the Rock Island and the D. & R. G. W. at Denver. This interchange traffic was formerly handled at Burnham yard by the D. & R. G. W., (see diagram) but it is now interchanged direct with the D. & R. G. W. at its new North yard* by means of the new cutoff line. This line extends from Sandown Junction, a point east of Denver on the Union Pacific (used

*See *Railway Age* of October 21, 1950, for a detailed description of this yard.

Diagram of the situation at Denver, showing the new cutoff in relation to the former route through Burnham yard





Erection of six major bridges was required in the construction of the cutoff. This ballasted-deck structure carries the Union Pacific's double-track north line to Cheyenne, Wyo., over the cutoff line



Two separate bridges, 11 ft. apart, were erected to carry U. S. Highway No. 6, a four-lane divided-traffic freeway, over the cutoff

by Rock Island trains to and from Limon, Colo.), to a connection with the Northwestern Terminal, which is operated by the D. & R. G. W., over which line trackage rights were obtained to reach Utah Junction, a connection with the D. & R. G. W. north of Denver.

The new route shortens through freight movements by about six miles. The cutoff, in addition to expediting the handling of transcontinental traffic generally, will speed up the interchange of freight with the D. & R. G. W. and facilitate the icing of fruits, vegetables and other perishable freight by the modern facilities afforded at North yard. Also, the new route keeps through traffic away from Denver proper and thus enables better service to be given to business firms in the city.

The new cutoff has opened up new industrial property for use by Denver business concerns. The Rock Island has constructed several industrial leads from the cut-

off line for the development of the property adjoining it, and already several industries have located their plants there.

The project involved the construction of 4.31 miles of single-track line, of which 3.75 miles lie on Rock Island property; the rehabilitation of a portion of the Northwestern Terminal trackage; the construction of a passing track about 3,500 ft. long at the connection with the Union Pacific; and the installation of automatic block signals.

An unusual feature of this project was the need for six major bridge structures within a distance of one mile, which required an expenditure of \$712,000. Three of these bridges carry tracks of other railroads over the new line. One of these is a three-span ballasted-deck structure of wide-flange beams on concrete piers and abutments, which carries the double-track main line



The new line, on a 3-deg. 15-min. curve, passes under two more bridges. The closer structure supports the main track of the C. B. & Q.; the far structure carries U. S. Highway No. 85



A combination pile trestle and deck-girder bridge carries the new line across a drainage ditch and the Platte river

of the Union Pacific; another is a three-span bridge consisting of wide-flange beams on concrete piers and abutments, carrying a main track of the Chicago, Burlington & Quincy; and the third is a three-span creosoted timber-pile structure carrying an industry spur of the Burlington. Two others are three-span highway overhead bridges for U. S. Highway No. 85 and U. S. Highway No. 6, the latter having a four-lane pavement with divided traffic. The sixth structure, 453 ft. long, which carries the cutoff line over a drainage ditch, known as "Burlington Ditch," and the Platte river, consists of two deck-plate girders on pile piers and 22 panels of pile trestle.

About 358,000 cu. yd. of grading were involved in the construction of the cutoff. The roadbed was built 24 ft. wide on the fills and 34 ft. wide in cuts, including the side ditches. The ruling grade is 0.85 per cent east-

bound (on the Rock Island) and one per cent west-bound (on the Northwestern Terminal). The sharpest curve is 3 deg. 30 min. The track consists of 100-lb. secondhand rail laid on No. 4 and No. 5 creosoted crossties. Gravel ballast was used to a depth of eight inches under the ties.

The work was carried out under the general direction of W. B. Throckmorton, chief engineer. The design and plans for the bridges, as well as general supervision over their construction, were handled by J. F. Marsh, engineer of bridges, but the actual bridge construction was done under contract. Signal work was planned and carried out by company forces under the direction of C. M. Bishop, signal engineer. The grading was done under contract and the tracks were constructed by company forces under the direct supervision of W. P. Hale, construction engineer.



Conductor in caboose uses walkie-talkie set normally carried in box on end of seat



In locomotive cab, the loudspeaker is above window, and microphone is within easy reach of the engineman

Radio Expedites Freight On the Green Bay & Western

Communication between the head-end and caboose on fast through freights, prevents delays on highly competitive route

The Green Bay & Western has installed two-way voice radio equipment on its freight trains operated on 214 miles of single-track main line between Green Bay, Wis., and Winona, Minn. This radio equipment is in service on five diesel road locomotives and six road-switcher diesel locomotives, as well as on the cabooses. On the locomotives, the radio equipment is rated at 10 watts, and is installed permanently. Portable walkie-talkie radio sets, rated at $\frac{1}{2}$ watt, are used on the cabooses, and these same sets can be carried by the conductors or trainmen when out flagging or when walking along the train when stopped for inspection. Two of these portable radio sets are assigned to each caboose in road service.

The Kewaunee, Green Bay & Western, a subsidiary of the G. B. & W., extends from Green Bay eastward for 36 miles to Kewaunee, a port on the west shore of Lake Michigan. The Ann Arbor and the Chesapeake & Ohio operate scheduled car ferry service across Lake Michigan, connecting with their lines eastward to Detroit and points east. The G. B. & W., in combination with the K. G. B. & W., operates as a "link" to extend this ferry route west to Winona, where connections are made with the Burlington, the Milwaukee, the Chicago Great Western,

and the Chicago & North Western, for points west and north. Also, the G. B. & W. connects at various intermediate points in Wisconsin with the Soo Line, the Chicago & North Western and the Milwaukee.

About 60 per cent of the traffic on the G. B. & W. is in this car ferry route. Eastward traffic includes lumber, agricultural products, paper, cheese, etc., and the westward traffic includes automobiles, automotive parts and other manufactured products. Through traffic varies from 75 to 125 loaded cars each way daily in each direction between Kewaunee and Winona. Other through traffic between Green Bay, Wisconsin Rapids, Winona and other cities may vary from 25 to 30 cars daily. Deliveries at connections and at industries in cities are on definite schedules. If strong winds delay the car ferries on the lake, train operations must be coordinated to obviate unexpected delays en route, as well as in terminals. In this respect the radio is especially useful.

The bulk of the through traffic is handled by two through trains, one in each direction daily. Extra trains are operated as required. Cars from the ferry docks at Kewaunee, and from industries in the Green Bay area, are assembled in the yard at Green Bay and made up



Brakeman uses packset radio when walking along train

in westbound trains for through movement to Winona. These trains pick up and set out cars at principal interchange points such as with the Soo Line at Amherst Junction, the C. & N. W. at Merrillan, and the Milwaukee at Wisconsin Rapids. Similarly, eastbound trains make up at Winona and East Winona, and operate through to Green Bay yard where they are broken up in blocks for delivery to Kewaunee docks and industries in the Green Bay area.

A local freight train is operated in each direction daily. This local assembles cars at Wisconsin Rapids to be picked up by the through trains. No passenger trains are operated on this railroad.

How the Radio Saves Time

When a train is being made up in the yard at Green Bay or at Winona, the radio is used by the conductor in the caboose to tell the engineer when the train line brake pressure is pumped up to normal, and to give him a verbal "highball" when all members of the train crew are on board the caboose and the train is ready to depart. Compared with using hand signals, this use of the radio saves 10 minutes and perhaps more, especially in stormy or foggy weather. At Winona, each eastbound through train is made up by assembling blocks of cars at interchange connections. These operations are expedited by using the radio between the locomotive and two walkie-talkies, one used by the conductor and another by the brakeman at the switches.

When a train on the road is entering or leaving a siding, the conductor uses the radio to tell the engineer just where the rear end is, i.e., so many more car lengths to get in the clear, or to get out on the main track. Then, when the rear brakeman closes the switch and gets on the caboose, the engineer is advised by radio so that he can accelerate the train at once. This saves time as compared with dragging along at slow speed for an uncertain distance in the hope that the brakeman has had time to hop on.

The cabooses on the G. B. & W. have bay windows on

the sides, from which trainmen watch their trains ahead. If they see a hot box or dragging brake beam, the conductor uses the radio to tell the engineman. For example, on June 26, the conductor detected a hot box on the sixth car ahead of the caboose on a westbound train of 70 cars. He used the radio to call the engineer and they decided to stop at the next siding to set the car out. Previously, under such circumstances, the conductor would stop the train by an emergency application of "air" at the caboose, and, in too many such instances, the train would be pulled in two.

In the present practice, as soon as the train reduces speed or makes an unusual stop, the conductor uses his radio to call the engineer. Having determined the reason for the stop, one brakeman takes one of the walkie-talkie sets and goes back to flag, while the conductor takes the second walkie-talkie set and walks up along the train to inspect it. Having located the trouble, he uses the radio to discuss the situation with the engineer and decide where to set the car out, if such action is necessary. The radio is also a great help in making the various moves to set out the car and recouple the train. As explained by the division superintendent, the use of the radio saves 20 minutes to a half-hour just about every time something happens on the road that requires trainmen to get out on the ground to inspect the train. The major portion of the time lost previously was in getting word to the engineman by hand signals to tell him that the train was O. K., to call in the flag, and, when all the crew was on board, that the train was ready to depart. Now, with three-way radio conversation between the flagman, the conductor and the engineman, much time is saved, compared with the previous use of hand signals.

In some instances, the through trains may stop at interchange points to set off cars or pick up cars, this being done at the head end of the train. Previously, in such instances, the train pulled up with the caboose to the station so that the conductor could pick up the waybills. Then the train backed a train length, so that the cars were picked up at the head end. Now, with the radio, the locomotive is stopped where the cars are picked up at the head end. The head brakeman picks up the waybills, and uses the radio to pass information to the conductor so he can "book" the cars in his train list. This practice saves about 25 minutes.

When arriving at Winona, a westbound train is broken up by setting out blocks of cars at the various interchange points. This operation is expedited by three-way radio conversation between the engineman, the conductor, and the brakeman who cuts the cars and throws the switches. This use of the radio saves 15 to 20 minutes or more, depending on local weather conditions.

On this railroad, train movements are authorized by timetable and train orders, westbound trains being superior. When opposing trains are approaching a meeting point, the enginemans use the radio to call each other to make sure that the eastbound train is in the clear on the siding. This saves time and enhances safety. The range of radio conversation between locomotives is about 10 miles.

Details of Radio Equipment

In the cab of the locomotives, the radio handset and control box are mounted near the engineer's position. The radio electronic apparatus is in a case in the nose compartment of the locomotive. Each radio set is operated by energy from a 6-volt, 100-a.h. automotive type, lead storage battery, which is charged through limiting

resistances from the 64-volt battery used for starting the diesel locomotive engine. The radio is in operation to receive or send calls at all times when the locomotive is in service, either in the yard or on the road.

Two walkie-talkie portable radio sets, each weighing 10 lb., are assigned to each caboose normally used in road service. One set, which is equipped with a shoulder carrying strap, is normally located in a box which has metal hanger hooks that fit over the arm at the end of the caboose seat. The second walkie-talkie radio set in each caboose has a harness to fit over both shoulders so the set can be carried on a man's back, and the ear-

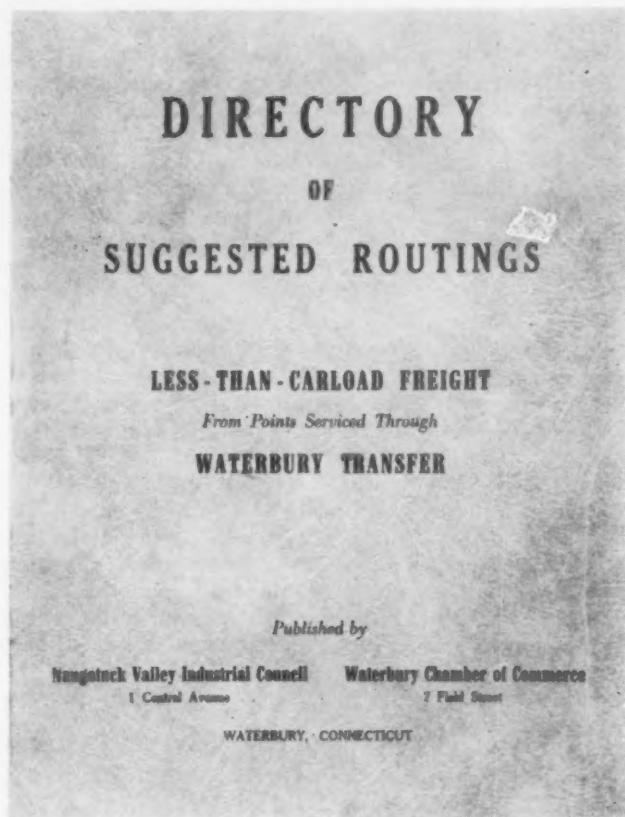
phones can be clamped over a man's ear. Thus, this set can be used by a man walking along a train, climbing cars and doing other work. Either of the two sets can, of course, be used in the caboose or outdoors if the other set fails.

The self-contained batteries in each walkie-talkie have capacity to operate the set for several hours continuously, if necessary. In normal service, however, the conductor does not have his set turned on. He can call the engineer at any time, but the engineer cannot call the caboose. As a general rule, the calls are from the conductor to the engineer. Any time when the train reduces speed or

GRiffin PLAN

Steers L.C.L. to "On The Ball" Roads

Cooperation of Naugatuck Valley shippers and carriers makes possible loading of more through cars, thereby improving service, says plan's author



In the "Directory of Suggested Routings," dated May 28, 1951, routings from Waterbury are set up to about 370 points in 45 states and two Canadian provinces. Another revision, soon to be issued, will broaden the scope of the directory. The directory clearly indicates points to which differential rates are available via Canadian lines.

[This article is a report of an interview, by a Railway Age editor, in which J. B. Griffin, superintendent of traffic of the Scovill Manufacturing Company, Waterbury, Conn., explains a plan for expedited l.c.l. service of which he is the author.—EDITOR]

Reporter — Mr. Griffin, off and on for the last few months, we've been hearing about your plan for handling l.c.l. traffic. Just what is it?

Mr. Griffin — Briefly, it's primarily an effort on the part of the shippers in Connecticut's Naugatuck Valley to secure better railroad l.c.l. service by routing their freight via the lines giving the best service. When all of us do this, we frequently make it possible for the New Haven railroad, which originates our freight, to make frequent through cars to destinations or distant transfers, where cars, at present, at least, cannot be regularly scheduled. [The New Haven reports that in January of this year only six such cars were loaded by Waterbury, and in February two were loaded, while in March 46 such cars were loaded to 16 different destinations. For April the figures were 76 cars to 23 destinations, in May, 56 to 18, in June, 61 to 21, in July 69 to 32, while in August, estimates indicate the total reached 100 cars to 40 places. Since the inception of the plan, the percentage of total tons forwarded from Waterbury in overhead cars has increased from less than 1 per cent to about 21 per cent, based on July and August figures. There has been little change in the average tons per car. — Editor] Since our freight by-passes many transfers we get a lot better service, which enables us to sell in markets which frequently are much closer to the plants of our competitors than they are to our own.

stops, the conductor calls the engineer. Thus, according to the division superintendent, nearly all the occasions necessitating use of the radio originate with the conductor. Therefore, operating officers of the G. B. & W. are of the opinion that, for their type of train service and volume of traffic, the portable walkie-talkie sets are satisfactory, in consideration of the economy in first cost, compared with radio equipment with caboose power supply of a capacity to receive messages at all times.

In a project now under way, 10-watt radio apparatus is being installed in the yard office at Green Bay and in the yard locomotives used in this yard as well as for

serving industries in the Green Bay industrial area. This system will provide direct two-way communication between the yardmaster and yard crews. Also calls can be made between the yardmaster's office and the road trains when approaching or departing from this terminal for a distance of several miles.

The radio on the Green Bay & Western was installed by railroad forces under the supervision of Alan S. Johnson, mechanical inspector in the mechanical department in charge of tests and electrical developments. The radio on the locomotives was made by Motorola and the walkie-talkie sets by Bendix.



Waterbury Transfer is the center of activity in the program of the Naugatuck Valley shippers

Reporter — As we understand it, you were the author of this plan. What made you take on what must be something of a job?

Mr. Griffin — I didn't take it on voluntarily. It was wished on me as a result of my insisting, at New England Shippers Advisory Board meetings, that while we shippers were doing a lot of yelling at the carriers about lousy l.c.l. service, we could — and should — do something to help them. So, naturally I was given the job of trying to work out some way of helping them, as well as ourselves.

Reporter — When you got into the situation what made you decide that the answer lay in routing?

Mr. Griffin — I didn't at first, but I began by checking the service of the various carriers. I found that in one month, shipments to Chicago, for example, from our area, had been routed via 26 different lines or combinations of lines, with transit times varying from 6 to 20 days. (I also found one shipper routing the same commodity to one destination by five different groups of carriers, a different route each day in the week.) That seemed rather silly and seemed to indicate that we were all trying to please too many freight salesmen. Another check a month or so later revealed that my earlier findings were typical. Obviously, then, the thing to do was

to try to persuade the shippers in the valley to ship via the best service routes. Possibly, then, the New Haven might be able to make cars to destination, or at least cars which would by-pass one or more transfers. By March of this year we began doing just that.

Reporter — Has your service improved as you expected?

Mr. Griffin — All is not yet perfection by any means, but some of the shippers in the valley have been asking, "What's got into the railroads?" Third morning from our plants to Chicago is usual now. Before the plan was in effect it was unheard of.

Reporter — What has been the railroads' part in your plan?

Mr. Griffin — Well, in addition to our using the best service route, which increases the tonnage via that route, there is better cooperation between shippers and local agents and between local agents and the agent at Waterbury Transfer, to which all the local agents load trap cars. Every day we call the local agent and tell him what we'll have for him the next day, 2,000 lb. for Miami, 1,500 lb. for Cleveland, or whatever it happens to be. The local agent in turn calls Waterbury Transfer and lets the agents there know what he'll receive the next morning. That way Waterbury can plan to make



Pallets and fork trucks (left) help the New Haven in handling I.c.l. at Waterbury. This car, destined to Cleveland, Ohio,



is not regularly scheduled. Platform lift trucks and live skids (right) also play a part in handling I.c.l. at Waterbury

through cars. Also, we in Waterbury will call the local agent, on Monday, for example, and tell him that on Friday we'll have a 6,000 lb. shipment going, perhaps, to Fort Worth. Waterbury then will plan a Fort Worth car for Friday, holding any Thursday freight for that city unless there should be enough for a Thursday car, too.

Reporter — Doesn't holding some of that freight for a day cause some shippers to complain?

Mr. Griffin — No, because, despite an extra day's layover at origin, we still get better service when we load the through car than we get when the freight has to go through the normal complement of transfers.

Reporter — Do the people in the valley get the benefit of some reduced rates or do you pay the regular transportation charges?

Mr. Griffin — All our freight is transported at regular I.c.l. rates.

Reporter — How about some of the railroads? Have any of them complained about being left off the "approved" list in your routing guides?

Mr. Griffin — A few of them. We think that's unfortunate, because they're always telling us how they like to compete, with the trucks and among themselves. We say, let them compete, and if they can compete in service they'll get some of the business. I might say that the "approved" route today may be on our "mud list" tomorrow if the participating carriers don't stay "on the ball." We'll give anybody a crack at our business if they can equal — or improve on — service via the currently suggested route.

Reporter — I note that your present routing guide includes a very limited number of destinations. I assume that this will be expanded at a later date.

Mr. Griffin — Yes, there'll be a new guide published in a couple of weeks. And incidentally, there'll be some changed routes, too, for some of the carriers have not performed as advertised.

Incidentally, you may be interested in how we in-

tend to check on the carriers' performance, and thereby try to keep them on their toes. Quarterly, we will publish a complete survey of transit times, which will show billing date, destination and arrival date. This survey will be available to all carriers. They'll know who's doing all right by noticing the destination. Any line dropped from our guide also will know immediately why it has been dropped. No route, shipper or consignee will be shown. Also, monthly, we'll make spot checks so that we'll know all the time what is going on.

Reporter — Mr. Griffin, are all the shippers in the Naugatuck Valley cooperating with you in your plan, or are some of them "bucking" you, for one reason or another?

Mr. Griffin — I'd say about 90 per cent of them are going along. But there's nothing compulsory about the plan, naturally, and anyone can route his freight as he sees fit. However, I don't think he should then kick about poor service, if that's what he gets.

Reporter — What do you think of the possibility of your plan expanding to other areas?

Mr. Griffin — Well, there's a lot of interest in it, and if it continues to be as successful as it has been to date, and there's no reason why it shouldn't, I expect that other areas can and will work out similar arrangements.

Reporter — What does this plan do for the railroads?

Mr. Griffin — For one thing, I'm sure the New Haven will tell you it has brought it increased business, and if service continues to improve there is no reason, in my opinion, why the railroads shouldn't get even more business.

Since many transfer handlings are saved there should be, eventually, savings also in handling costs and in loss and damage claims. Perhaps most important of all today, we think many car-days are saved. We think it's better to tie up one car for a few days' trip, going to Fort Worth, than it is to tie up several cars, for a total of perhaps as much as 15 to 20 days going to the same place.

The Kansas City Southern purchased its first diesel in 1939, and has been steadily increasing its diesel ownership ever since. The system's operations now are almost completely dieselized



**Service and Foresight Combined in
The Development and Growth
Of the Kansas City Southern**

Service—the kind that attracts and holds shippers—has been an important element in the development of the Kansas City Southern-Louisiana & Arkansas lines into heavy-duty railroads linking Kansas City with the new industrial empires in Louisiana and Texas. By a combination of "lifting one's self by the bootstraps" and participation in the recent industrial growth of Texas and Louisiana, K.C.S. management has been able to provide the facilities needed for efficient, modern freight and passenger service, and to impart a healthy color to the lines' financial complexion.

Barely twelve years ago the Kansas City Southern and the Louisiana & Arkansas—now operated by a common management as Kansas City Southern lines—were two independent railroads. The Louisiana & Arkansas, extending from New Orleans to Dallas, with a branch from Alexandria north to Hope, Ark., had been built as a combination of lumbering roads and in later years served as a local carrier handling miscellaneous com-

modities. The Kansas City Southern was built to provide Kansas City with a short-line rail route to the Gulf of Mexico, chiefly for the movement of grain but also to tap the natural resources of the area—coal, oil, zinc, lead, timber, etc. In 1939 the K.C.S. purchased control of the Louisiana & Arkansas, and subsequently acquired all outstanding indebtedness of that line, making it a wholly owned and controlled subsidiary. This acquisition gave the K.C.S. entrance into Alexandria, Baton Rouge, New Orleans and Dallas—all important traffic centers.

The emergence of the new and vigorous K.C.S. lines has been given a material assist by the rapid and extensive industrial growth in eastern Texas in the years since 1939. More recently, the Louisiana & Arkansas has been experiencing somewhat similar industrial growth at Baton Rouge, New Orleans, and at points along its southwest Louisiana lines.

But in order to "cash in" on the benefits of all the



One of the first railroads to experiment with end-to-end radio, all K.C.S. and L. & A. road diesels—both freight and passenger—and most of its road cabooses are so equipped. It has proved valuable in speeding the movement of trains, both over the road and in and out of terminals. This picture was taken as the train passed Sulphur Springs, Ark., just over the Missouri state line. The auto-type aerials attached to the locomotive number boxes—barely visible in this photo—are an experimental installation and have proved very satisfactory

traffic potentialities of this new development, the K.C.S.-L&A. combination had to tailor its services and facilities to attract and hold this traffic. Inasmuch as most of the new industrial centers are also served by one or more other railroads, the K.C.S. had to be able to offer competitively attractive service and facilities.

Shrewd management, coupled with intensive traffic solicitation and a determination to do a bang-up job for its shippers, enabled the road to meet the challenge. These efforts produced increased traffic, which in turn produced increased earnings—which could be plowed back into essential property improvements.

"Hotshot No. 77"

One of the moves by which the K.C.S. sought to regain traffic was the inauguration of No. 77—a fast merchandise train from Kansas City to Shreveport and Port Arthur. It was extended to New Orleans and intermediate points when the L&A. was acquired in 1936. This train with the "double lucky" number covers the 786 miles between Kansas City and Port Arthur in thirty hours and thirty minutes—an average of over 25 m.p.h. including time in terminals. Inasmuch as the traffic handled on this train is interchanged with fast trains of a dozen different railroads at thirteen intermediate points, No. 77 has both a fast and a difficult schedule—which it has kept with singular regularity for over 15 years.

The road caters to the needs of the large petroleum industry in the Baton Rouge, Shreveport, and Lake Charles-Beaumont-Port Arthur areas. For the movement of petroleum products a fast northbound train—No. 42—is scheduled to the needs of this traffic, providing fast connections with diverging railroads. This train handles all commodities requiring expedited movement.

Because it operates the short route from Kansas City to the Gulf of Mexico (at Port Arthur), the line normally experiences a substantial movement of export grain—moving both through Port Arthur and New Orleans. The road owns a 500,000-bushel capacity grain elevator at Port Arthur—the main K.C.S. port for export grains—and has access to the 2,600,000-bushel public elevator

at New Orleans, now being doubled in capacity. At Kansas City the line serves exclusively two elevators with a combined capacity of 4,200,000 bushels. Years of experience with Gulf grain traffic has taught the company how to handle large grain movements from the grain centers to shipside quickly and efficiently.

Overhead Traffic

Through operations—both north and south—are enhanced by the fact that the K.C.S. normally has a fairly even balance of traffic, with about 52 per cent southbound. This permits efficient utilization of crews and equipment—and thereby better service.

An important element in the system's great improvement in traffic in recent years—other than the advantages accruing to the K.C.S. in acquiring the new traffic outlets of the L&A.—has been success in winning a substantial flow of overhead traffic. This traffic was won by intensive, planned solicitation, and by offering fast-stepping, carefully timed services which enable shippers actually to save time by specifying the K.C.S. lines as intermediate carriers. Close attention to schedules—including the schedules of connecting lines—has enabled the line to offer some unusually attractive services in connection with other roads. In fact, it has been the system's policy to develop every possible combination of routes with connecting carriers at 27 separate interchange points.

The growth of the synthetic rubber and chemical industries in the Lake Charles-Beaumont-Port Arthur area, with K.C.S. industrial trackage threading almost the entire area, has brought substantial new traffic. A similar development of the petroleum and chemical industries in the vicinity of Baton Rouge and New Orleans is likewise opening new sources of traffic.

The management has not been content to rest with these developmental projects, but has sought other new industries in order to provide the line with a greater diversification of traffic. Industrial development activity helped effect the location of a large pig iron and coke plant of the Lone Star Steel Company at Daingerfield,

Tex., served exclusively by the Shreveport-Dallas line of the L&A. This mill—now being enlarged by the addition of a rolling mill—consumes an average of 33 carloads of coal daily, a large percentage of which comes from fields served by the K.C.S. in Oklahoma. Outbound shipments of pig iron, coke, coal tar, etc., aggregate about 20 cars daily.

Another industrial "exclusive" was the location of a large plant of the International Pulp & Paper Co. at Spring Hill, La., on the Alexandria-Minden-Hope line of the L&A. This plant receives more than a hundred carloads of pulpwood daily, much of which originates on the K.C.S. and the L&A. Outbound paper products average 40 cars daily.

These examples are representative of the effectiveness of the road's industrial development activities.

Improved Plant

The K.C.S. originally found its chief traffic in Gulf export grain, petroleum products from Gulf area refineries, coal from the Pittsburg and Heavener areas, and lumber. During the 1920's, when traffic was expanding on most roads, the K.C.S. experienced but small gains as its territory gradually became timbered off, as competition from other roads for coal traffic grew more severe and as pipelines and tankers carried more oil. In common with all roads, traffic dropped steeply during the depression. Traffic volume hit bottom in 1933, and in 1934—with the opening of new oil fields in its territory—began to recover.

At this time the management decided to embark on a program of property improvement—in which the then-meager earnings of the company were plowed back in capital investments—in order to participate more fully in the fruits of the heavy industrial growth foreseen for the future. The first improvements made were those which would produce the largest return on the investment. These made possible greater operating economies, which in

turn made more earnings available for investment in a better plant. This reinvestment of earnings is the principal method used by the road to finance most of its improvements—other than equipment purchases. In this respect, it has been greatly aided by an ownership-management willing to forego dividends on its stock, if necessary, in order to use all available funds to build up the physical property.

Among railroads west of Chicago, the Kansas City Southern was a pioneer in the use of heavy rail. It also was one of the first to use treated ties exclusively, while a continuous ballasting program—principally with chaff and gravel—has given the line an unusually sound roadbed.

Relaying of the 432-mile Northern division with 127-lb. rail was begun in the Twenties and was completed several years ago.

On the Southern division, the 128-mile district between DeQueen and Shreveport is laid with 112-lb. rail. Before the year is out, the line south of Shreveport to Beaumont will have been laid with 100, 112 and 115-lb. rail, leaving only the 20 miles of main line between Beaumont and Port Arthur to be replaced.

At the time the Louisiana & Arkansas was acquired in 1939 it, too, was built to light standards and in need of extensive strengthening in order to accommodate the heavy traffic foreseen by the K.C.S. Work on this track—though pursued diligently—has been proceeding somewhat more slowly due to the difficulties in obtaining adequate rock or slag ballast (now solved by the location of the Lone Star Steel plant on L&A. lines). An extensive tie renewal program has given this line all treated ties, and at present the slag ballasting program is moving forward at the rate of about 50 miles a year. The original 70- and 80-lb rail has been largely replaced with 90-, 112- and 115-lb.

Recently, in order to accommodate burgeoning traffic, new yards have been built at New Orleans and Baton Rouge. They are designed for the fast, economical move-

As an operating man, W. N. Deramus, president of the Kansas City Southern Lines, is inclined to take an unhappy view of the million dollar out-of-pocket deficit run up by his passenger trains in 1949. "If it weren't for our passenger trains, we could have an even lower operating ratio," he explains. But when talking as a traffic man his viewpoint is somewhat different. The inauguration of the first "Southern Belle" in 1940 dramatized the K.C.S.'s new role as a major north-south carrier in a way nothing else could do. In 1949 the growth of the line was further symbolized by the inauguration of a third passenger train — post-war "Southern Belle"

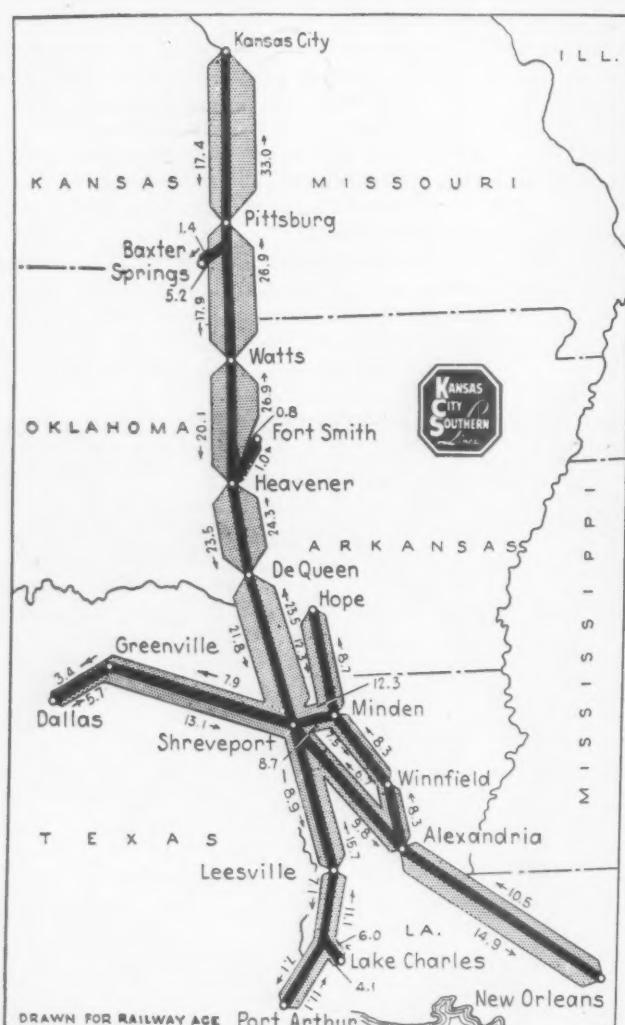


ment of cars, and have leads long enough to accommodate the longest trains. At present the K.C.S. and the L. & A. operate separate yards in Shreveport connected by a stretch of track running through city streets. Plans are now completed, and preliminary work started, on a new consolidated yard just north of the city. A new stretch of track will be constructed to connect this yard with the Shreveport-Dallas line, to eliminate reverse movements in the center of town.

A grade reduction and line straightening project is now in progress on the Shreveport-Dallas line—a somewhat neglected branch of the L. & A. before the K.C.S. took over—as a part of a program of improving operations on that line. Modern diesel repair facilities have been constructed at Pittsburg and New Orleans.

Prudent Management

The K.C.S.'s continued low operating ratio is attributed to extensive traffic development, and to a flexible, yet constant and attentive control of costs. Both the K.C.S. and the L. & A. are prudent in their use of manpower—a very expensive item in the present-day operation of railroads. As a result care is taken to obtain the best



All lines of the K.C.S. system enjoy a fairly evenly balanced traffic flow. In many cases, where locally originated and terminated traffic flows predominantly in one direction, volume in the opposite direction has been built up with overhead traffic. The line serves an area rich in a wide variety of natural resources.

possible value for every wage dollar. This has led to the establishment of highly mechanized maintenance-of-way gangs, and shops equipped with modern tools designed to improve production and quality. Station and terminal expenses are watched constantly and carefully so that no opportunity for economy will be overlooked. But economy is not practiced for economy's sake: service standards are kept high at all times and, insofar as earnings will permit, the plant is maintained in the best possible condition. The management recognized that, under present competitive conditions, without service there can be but little revenue, so although ways of reducing costs are constantly being explored, service standards are carefully observed.

Flexible Cost Controls

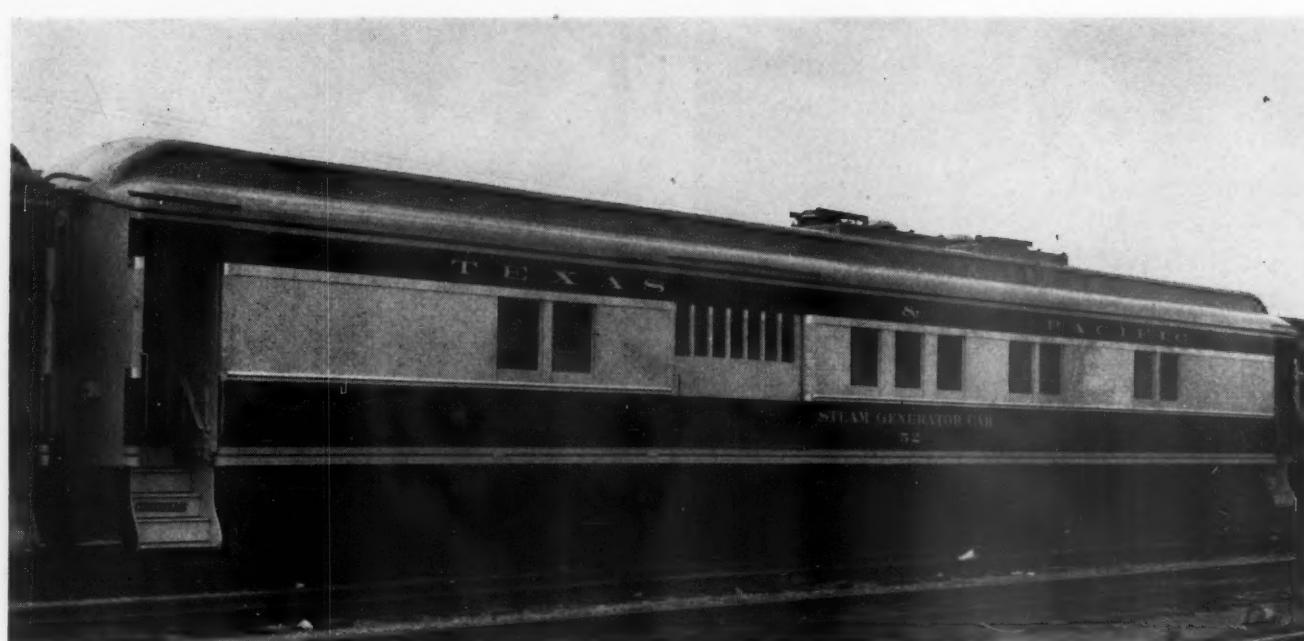
A powerful weapon in the K.C.S. strategy of controlling money outlays is its system of budgetary controls—tight overall, yet finger-tip flexible. As on most roads, departmental operating and capital improvement budgets are prepared each fall for the following year, based on anticipated earnings. The annual budget is broken into monthly allotments, and each departmental budget is broken into minor accounts. Although conditions frequently arise which require juggling the amounts apportioned to different accounts within a departmental budget, under no circumstances may the total amount budgeted to each department be exceeded without executive authority.

On the K.C.S., as the year progresses, actual revenues are watched closely and compared with the budgetary estimates. Just as soon as it becomes evident that earnings will not be up to the level anticipated, the total budget is cut immediately—not next month or next year—to a level in line with actual earnings. These cuts are not blanket "across the board" slashes, but are judiciously apportioned between various departments so that essential maintenance can be continued, projects under way can be completed, or unusual conditions be protected where cutting immediately available funds would cost the company more money in the long run. The largest amount of adjustment is usually made in the capital improvement budget. The trimming of operating budgets is handled with caution because the management realizes that too much "stop and start driving" is both extravagant and wasteful in its use of manpower and funds.

As a result, in spite of the budgetary ups-and-downs of the railroad, K.C.S. continues to maintain its high standards of service. Earnings can fall so far as to require a reduction in train service, or the discontinuation of essential maintenance. But when these conditions do occur, they are administered with caution and common sense so as to cause the smallest possible disruption in service to shippers.

The successful operation of such a system of budgetary control requires more than just a plan—it requires a smoothly functioning organization, with *every* individual employee fully aware of the system, its purpose, and how it works. That it works so well on the K.C.S. is a tribute to its personnel and organizational administration, as well as to the administration of the budgetary system itself. The road's continued low operating ratio—even in the face of current inflationary costs—is concrete evidence of its effectiveness.

The K.C.S.'s program of "hoisting itself by its bootstraps" is far from completion—and not all of the story has been told here. Even though the line has made spectacular progress in the past twelve years, self-improvement and growth will continue.



One of the automatic steam generator cars being built by the Texas & Pacific

How the Texas & Pacific Uses Steam Generator Cars

The Texas & Pacific designed and placed in service in November of last year its first fully automatic steam generator car, No. 50, which was described briefly in *Railway Age* December 23, 1950, page 29. With the experience gained by the operation of this car the road now has underway the equipment of two additional cars of similar design. These cars are expected to solve the vexing problem facing the T.&P., like every railroad striving to be 100 per cent dieselize, in that they provide a flexible and mobile source of steam supply to meet variable and unusual periods of weather — both for heating passenger and troop trains and for emergency and standby power plant requirements over the entire railroad. They are also ideally suited for use during the summer months to supply a large volume of steam for the operation of steam-jet air-conditioning systems on passenger cars in regular passenger service and in troop trains.

For Motive Power Flexibility

The Texas & Pacific has completely dieselize divisions, and like a number of other railroads, is well along to achieving its ultimate dieselize program. With the Korean war straining facilities still more, the road reports that it is difficult at times to provide diesel passenger locomotives for each passenger and troop train for the divisions that have been completely dieselize. By utilizing a steam generator car it is possible to handle passenger equipment with freight diesel locomotives not equipped with steam generators.

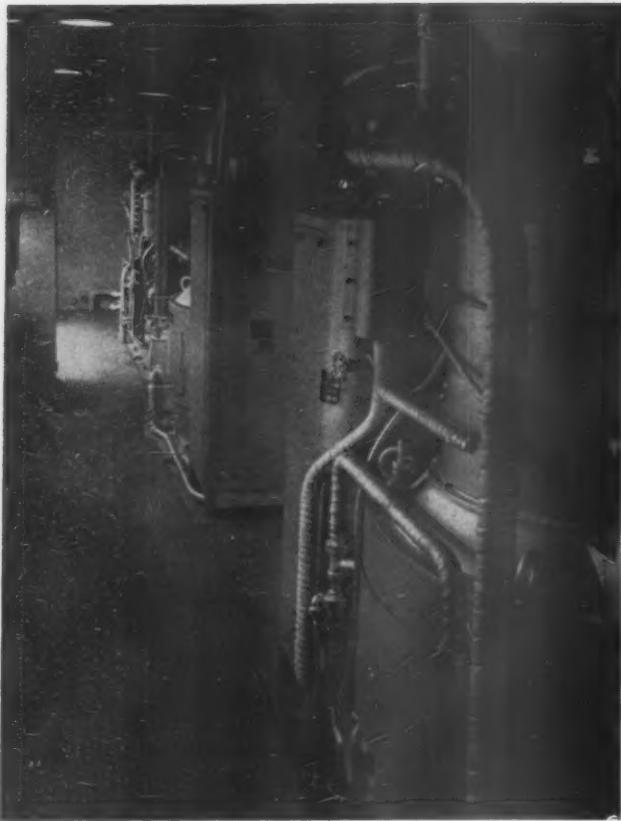
The cars are versatile since they not only generate steam, but produce their own compressed air for fuel-

atomizing purposes and also generate electric current for the operation of motors on steam generators and for "trainlining" to other cars for lighting purposes. They have sufficient additional capacity to operate mechanical air-conditioning systems on adjoining cars, or provide lighting in case of light failure on a train in which this car may be operating.

The cars also are valuable for assignment to special services, such as car movements at remote stations where heating and electric facilities are not available. When used in this manner as a stationary plant, the car can provide air and necessary electric current from its batteries, or by power generated by the diesel engine, or a.c. motor-driven generator for heating, lighting, water raising system and air conditioning.

Construction and Operation

The T. & P. steam generator cars are converted from steel coaches by removing the interior equipment, closing part of the windows and applying a large baggage-type side door on one side of each car for servicing purposes. Special equipment installed in the first car includes: Two Vapor-Clarkson 3,500-lb. steam generators; one 25-kw. Safety genemotor, 80-volt d.c., 32-hp. a.c.; one General Motors three-cylinder diesel engine, Model 3030-C; one Gardner-Denver air compressor Model ADS, two-stage 31-cu. ft. per min.; two Frigidaire evaporator-type exhaust fans. Edison electric storage batteries are 50-cell, 12-AHW, 900 amp.-hr. rating. Mounted on six-wheel trucks with 5½-in. by 10-in. journals, the car has a light weight of 158,400 lb. and a loaded weight



Left—Interior of Car No. 52. The two Vapor steam generators of 2,750-lb. per hr. capacity, are in the foreground. Behind them is the air compressor, genemotor and diesel



engine set with one of the car's two water tanks in the rear. At the extreme left is a portion of the electric locker. Right—The air compressor and electric generator

of 204,400 lb. It is equipped with tanks to carry 1,100 gal. of fuel and 4,900 gal. of water. There are King fuel and water gages and standard diesel fill-up connections for water and oil.

The first car was also equipped with a car-body air filter at each vestibule end to filter all air drawn in. The glass was removed from the vestibule side doors and replaced with a grill to allow air to come into the vestibule and hence through the car-body air filters. Two fans in the car roof exhaust hot air from inside the car. Two hatches in the car roof over the steam generators give access for removing and applying parts during maintenance and overhaul.

Should the diesel engine for any reason become inoperative and the supply of air and electric current be curtailed, the batteries are of sufficient capacity to operate the steam generator for approximately 3½ hr. The car has an air connection hose at each end which can be connected to the main reservoir air line of a diesel road locomotive in an emergency, thus supplying air for atomizing the steam generator fuel.

If the car is being used as a stationary power plant where electrical standby supply is available, the diesel engine driving the generator and air compressor may be shut down. Spare parts for the diesel engine are carried inside the car to be readily available should mechanical trouble develop.

With the large-capacity water and fuel tanks, the car can, if necessary, furnish steam continuously in normal operation for a 20-car troop train from Fort Worth to El Paso, 615 miles, before having to replenish the fuel and water supply.

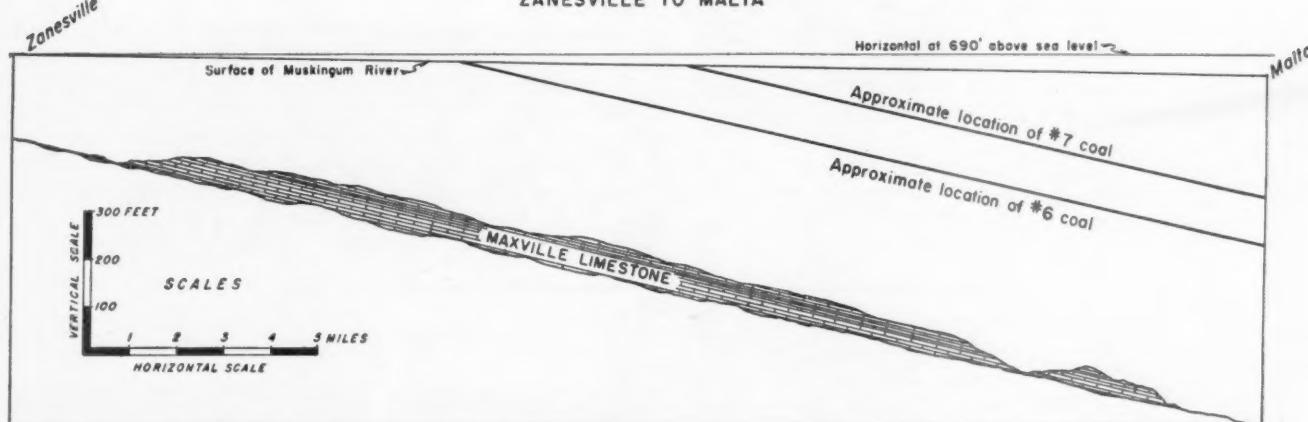
The two additional steam generator cars now being

built, numbered 51 and 52, are essentially the same as the first cars, except that they are equipped with two 2,750-lb. steam generators, since the original unit with larger capacity generators is expected to meet all major emergency power plant and standby needs. Among other refinements, based on experience with the first car, are stack covers for inactive duty, combination fresh-air intake from the car body or through the roof to facilitate car heating in winter and cooling in summer, fill-up and from one spot for both fuel and oil, and two sets of 1,000-amp. hp. lead batteries.

"I refuse to believe that the railroad industry is a dying industry or that it will be crushed by its current problems. The solutions will be found more quickly and more satisfactorily if the public takes a thoughtful, intelligent attitude toward its regulation of the railroads. But in any case their problems will be met because the railroads are too important a part of our civilization to be permitted to die, because the spirit of railroad men which met their original challenge is still capable of meeting current problems. We will be dependent upon railroads in this country for many years to come and the issues will be solved out of national necessity, but whether this is done under private enterprise or socialism will be greatly influenced by the American public and its attitude toward transportation regulation and competition over the next few years."—*From an address by H. E. Bixler, general superintendent transportation of the Boston & Maine, to the Sanford-Springvale Rotary Club, Sanford, Me.*

IDEAL CROSS-SECTION ALONG THE MUSKINGUM RIVER

ZANESVILLE TO MALTA



This cross-sectional diagram shows the depth below ground and the thickness of the Maxville limestone in Muskingum

and Morgan counties, Ohio. The B. & O. runs through this area in a generally northwest-southeasterly direction

Need High-Calcium Limestone?

"Plenty Along Our Line," Says the B.&O.

Railroad's industrial geologist reports big market for mineral in steel industry as grade of ore being used changes; flux needs tied to lack of good coking coal

High-calcium, relatively pure, limestone, a raw material indispensable to many major industries is available in a number of areas along the lines of the Baltimore & Ohio in eight of the thirteen states it serves, says a voluminous and handsome industrial development report recently published by the railroad. (This report is the second in a series describing mineral raw materials in the area served by the B. & O., and follows the railroad's "Salt Report.") Entitled, "High-Calcium Limestone in the Area Served by the Baltimore & Ohio Railroad," this loose-leaf type book consists of 105 pages of information on the quantity and quality of the limestones found in the various localities served by the B. & O. Twenty-seven maps and cross-sectional diagrams, in color, are provided to orient the reader and to show the location of the various branches of the Baltimore & Ohio in relation to the deposits of limestone. The brochure is designed to acquaint industrial users or producers of high-calcium limestones with the sources and characteristics of this product in B. & O. territory, as well as to give a rough estimate of the amount of work needed for recovery of the rock.

The author of the study, John A. Ames, the B. & O.'s industrial geologist, assures the reader that in spite of

many changing conditions in the market for high-calcium limestone, especially in the steel industry, which is the largest consumer of limestone (as flux), "it is probable that increasing demands for truly high-calcium stone will continue because of relative economy and purity its use imparts to the finished steel. Higher grade foreign ores and domestic concentrates may go directly to the steel furnace. The purer high-calcium limestone will continue to be open hearth flux, since dolomite cannot substitute in this type of fluxing . . . Along with the not-so-gradual depletion of domestic 'high-grade' ores is an equally apparent drain on the supply of really good coking coals. As consequent utilization of lower grade coals increases, along with steadily mounting steel production, the demand for fluxing stone—at least for the foreseeable future—logically may be expected to show a corresponding increase."

Illustrative of one type of technical material in this book is the cross-sectional diagram printed below. Also, detailed analyses are given of the chemical content of the material in many of the areas described, e.g.:

BAKERTON, W. V., AREA

Calcium	CaCO_3	98.21	per cent
Magnesium carbonate	MgCO_3	0.86	per cent
Silica	SiO_2	0.02	per cent
Ferrous oxide and alumina	$\text{Fe}_2\text{O}_3-\text{Al}_2\text{O}_3$	0.75	per cent
Sulfur	S	0.09	per cent
Phosphorus	P	0.007	per cent

Several appendices provide summaries of information in the text of the book as well as some additional information, such as a glossary of geological terms used. Also, one learns from Appendix C, "Summary of Stratigraphy," for example, that the Frederick (Md.) limestone deposits are approximately 500 ft. in thickness and that, geologically, they are from the Upper Cambrian

age. Wherever possible, information is given as to whether or not the stone may be recovered by quarries and drift mines or whether the limestone formations are best worked by shaft mining. Maps and summary tables at the end of each chapter indicate just which of the counties in the various states served by the B. & O. have quantities of limestone which may be tapped commercially.

According to the railroad, all the information relevant to the various states has been checked by the state geologists or their authorized representatives. The states

involved in this report are Illinois, Indiana, Maryland, New York, Ohio, Pennsylvania, Virginia and West Virginia.

Despite its impressive scope and detail, the B. & O. makes no pretense that this study is an exhaustive one. It hits the high spots and then appends an extensive bibliography (94 references) of articles and books dealing with the subject. If any reader requires more information the B. & O. invites him to submit specific questions to its industrial development representatives or to its industrial geologist.

Joseph A. Fisher New Reading Company Head

**Presidency goes to traffic-trained,
operating-minded civil engineer
on retirement of Revelle W. Brown**



Joseph A. Fisher (left) took office as president of the Reading Company on September 1. Revelle W. Brown (right) retired on August 31 under a plan for earlier retirement age which he introduced on the Reading

On August 31, Revelle W. Brown retired as president of the Reading, a position he had held since 1944. On September 1, Joseph A. Fisher, executive vice-president, took his place as chief executive officer of the compact 1,291-mile road. In relation to the larger roads the Reading may seem a geographical pygmy, but it is, on the other hand, a tonnage giant. The Reading stands fifth among the nation's railroads in total tonnage handled, being exceeded only by the Pennsylvania, the New York Central, the Baltimore & Ohio and the Chesapeake & Ohio. Heavy tonnage on relatively little mileage makes the Reading a heavy density carrier.

Mr. Fisher was born at Sayville, Long Island, New York, in 1895. He had a rough time of it financing his tuition through Lehigh University, performing odd jobs in his free time. Spare moments were fewer than usual during his senior year when the curriculum was advanced on account of impending war. He graduated in 1917, a month early, with a civil engineering degree, and immediately took war work in McClinton Marshall's Pittsburgh steel mill. Mr. Fisher eagerly enlisted in the field artillery upon our entry into World War I, and later took an examination for a commission in the Corps of Engineers. His commission came through and

followed him overseas without catching up with him before his separation as a second lieutenant in the Artillery.

Brief service in a position with the National Slag Company first brought Mr. Fisher into contact with problems of distribution, freight rates and transportation service. Later, in taking a post-graduate course in business administration, he devoted some of his ingenuity to the reorganization of Lehigh's alumni association, through which he learned that the Reading was looking for college graduates who wanted to make a career out of railroading. Young "Joe" Fisher considered this a challenge—one he accepted even before ascertaining his rate of pay.

Traffic "Engineer"

Starting as a special agent in the traffic department in October, 1921, Mr. Fisher became involved in a number of special problems—an involvement which, to his delight, was to absorb him for the next 29 years—*(Continued on page 65)*

ANOTHER MO-PAC "FIRST"



...the
"SPEEDBOX"



An exclusive Mo-PAC development, the Speedbox is an outstanding time-and-money-saver for the L. C. L. shipper. This lightweight metal container makes possible door-to-door transport of merchandise with a minimum of handling, checking and "paper work."

Locked while en route between consignor and consignee, the Speedbox eliminates customary railroad loading and packing requirements but, despite important savings in time, drayage and materials, no extra charge is made for its use. This new service is available now between many Mo-PAC stations. Call or write your MISSOURI PACIFIC representative for details.

**MISSOURI
PACIFIC
LINES**

1851
A CENTURY
OF SERVICE
1951



SERVING THE WEST - SOUTHWEST EMPIRE

Low cost way to ship cement



From Lackawanna's gravity trestle at the Hoboken Terminal, bulk cement and other dry pulverized materials are transferred from covered hopper cars to barges for delivery anywhere in the New York area...efficiently and swiftly.

By means of conveying equipment easily available to any contractor, cement can be emptied from barges anywhere that a pipe-line can be run; under ground, under water, vertically, over long distances, and to any number of delivery

points. In many instances storage and extra handling are eliminated...resulting in substantial savings for shippers who take advantage of these Lackawanna facilities.

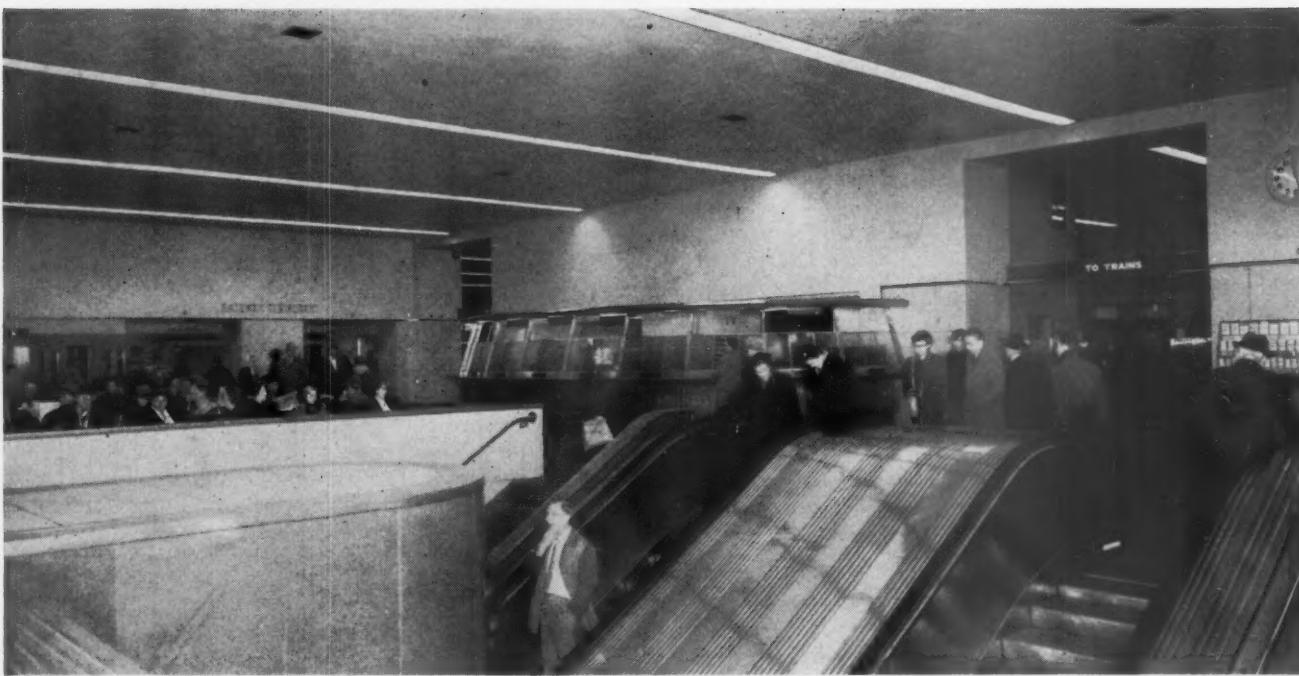
Whether it's cement or other bulk freight, packaged goods or perishables, modern Lackawanna efficiency adds up to preferred handling for your shipments. That's why so many of the world's great shippers specify the Lackawanna Railroad...to or through New York.

Lackawanna Railroad

1851-1951

SHIPPERS WHO ARE IN THE KNOW, CHOOSE THE ROUTE OF PHOEBE SNOW





One important improvement made during the tenure of Revelle Brown was the modernization of the Reading Terminal at Philadelphia. The ticket office was completely rebuilt on

the train floor and escalators were installed. Valuable street frontage was released for rental by the renovation. The train concourse was also modernized, and enclosed

(Continued from page 62)

working with shippers on matters of distribution and service. In 1922 he became a traffic representative, holding this position until 1925, when he became chief clerk in the office of the vice-president in charge of freight traffic. Here "special problems," especially with respect to waterborne freight, brought Mr. Fisher into the realm of rates, a complex subject which many find dull, but which fired the interest of this inquisitive young man.

Delved Into All Departments

Although his handling of these problems was often extra-curricular, expeditious disposal of them won for the new Reading chief, in 1925, the title of foreign freight agent. In 1928 Mr. Fisher was appointed assistant general freight agent, his first position in which rates were officially his assignment. In 1935 he became general freight agent. A year later, Mr. Fisher advanced to assistant freight traffic manager, holding that post until April, 1939, when he was promoted to freight traffic manager. On November 1, 1944, he was made general freight traffic manager. On September 1, 1945, Mr. Fisher was moved up to the Reading's top traffic post, being appointed traffic vice-president.

Throughout his affiliation with the traffic department, Mr. Fisher maintained an intense interest in the functions of the operating department, working hand in hand with those responsible for creating the service which constituted his principal sales tool. Perhaps related to his formal training as an engineer, Mr. Fisher's interest co-extended to all departments of the road, rounding him out for the position of executive vice-president, to which he was appointed on September 1, 1950. Those close to Mr. Fisher tell jokingly that "Joe's" interest in the railroad's overall operations came to the point of jeopardizing family relations; that it was not unusual for him to arrive Sunday afternoon—with Mrs.

Fisher, his son Robert and daughter Barbara—at Rutherford yard, Port Reading or Newberry Junction for an informal inspection of operations and facilities.

The new Reading president never misses an opportunity to tell employees how important their contribution is to the success of the railroad. Whatever a man is doing, Mr. Fisher stresses, he should know he is aiming to satisfy the customers so that the railroad will have more business. Mr. Fisher, using over-simplification to put his story across, takes a car of ore as an example. "It looks like plain earth," he says, "but it is urgent material for the steel mill." It is manufactured into steel, he explains, and may be used to build or expand a factory or warehouse, from which still more freight is moved. This creates jobs, and demands for more goods.

Mr. Fisher is a student of distribution. He feels that delayed delivery often negates a sale and lessens total transportation requirements. He urges industry to consider methods of warehousing and distributing which will gain for them the advantage of ability to fill demands "when and where needed," and permit factory-to-warehouse transportation in large quantities at low costs. Shippers who have an opportunity to do business this way, he feels, not only do themselves a favor, but conduct their distribution in a manner which makes rail transportation most attractive.

Costs, Rates and Tariffs

The new Reading president is convinced that rates are approaching the point where further increases will endanger the railroads' ability to compete, in full measure, for the traffic available. Further increases will spur decentralization, he warns, resulting in shorter hauls more vulnerable to motor carrier competition. He thinks it technologically possible to cut costs and keep the railroads sound; the diesel, with its flexibility of assignment, is a principal tool already at hand. Modern signaling can increase the capacity of tracks and permit retirement of additional tracks in multiple-track territory,

HOW THE READING'S CUSTOMERS FEEL ABOUT THE ROAD'S NEW PRESIDENT

"We are 'tickled to death' that 'Joe' Fisher got the job. He came up the hard way and deserves the job, and will make an excellent president. Perhaps it would be a sound practice if railroads gave the job to a traffic man more often, particularly when one is available who knows both departments so well. After all, the object of operating the railroad is to handle traffic."

R. F. HOGAN, traffic manager
Warner Company, Philadelphia, Pa.

"I am the happiest man in the industry to see 'Joe' Fisher get this position. He is the fairest man in transportation. If you have a problem, he works it out with you—if you are right, he goes along, and if you are wrong, you learn why. Mr. Fisher is going to be a big asset to the transportation field. I know his fellow officers and the rank and file on the Reading feel the same way."

C. R. RITTER, traffic manager
Luria Brothers & Co., Philadelphia, Pa.

"Without taking anything away from the fine railroad presidents who have come up through the other departments, I want to say that I am happy to see another instance where a traffic man has been elected to the job. 'Joe' came up in great style as an intelligent and forceful executive. He has a world of knowledge as to how to merchandise transportation, and as the head of the railroad, it should prove helpful not only to the shippers, but to the Reading Company employees and stockholders."

C. H. BEARD, general traffic manager
Union Carbide & Carbon Co., New York

"I have known 'Joe' Fisher for many years and know of no one who is more highly esteemed, and deservedly so, by his many friends and associates. His ability, diligence, sincerity and personality have long marked him in my book as outstanding. His promotion to the presidency, even though it unfortunately is not the usual thing for a traffic man to be so recognized, came—in this case—as no surprise."

ROBERT W. MARSHALL, director, traffic department
E. I. du Pont de Nemours & Co.
Wilmington, Del.

reducing operating and maintenance costs while expediting movements.

There is great hope for the simplification of freight tariffs, the new president declares, "if the job is tackled boldly." Such a step is now being taken through the appointment by the railroad traffic executives of a committee of tariff experts who will set up a program and confer with representatives of the shipping public, Interstate Commerce Commission and the Association of American Railroads. Their recommendations will be considered and acted upon by the railroads and it is expected that definite beneficial results will be obtained.

Mr. Fisher considers the passenger deficit a special problem with the short-haul railroads like the Reading. Suburbanites, including regular riders as well as those who use the trains merely as a standby facility, expect excellent service and, by-and-large, it is afforded them. However, Mr. Fisher adds, "It is possibly the only item involved in their standard of living for which they resent paying even the cost—to say nothing of any return

to the railroad to cover its investment and efforts. Where they will pay sharp increases, say for food or automobiles, with only an inward protest, moderate increases in railroad fares to partially relieve growing deficits are the subject of organized and vigorous protest to the sheltering regulatory bodies."

Revelle Brown Retires

Revelle W. Brown retires at the early age of 68, definitely in his prime. Mr. Brown takes pride in the fact that he is one of the first Reading officers to go out before 70 under a plan which he himself instituted. Mr. Brown feels that the earlier retirement age creates an incentive down the line by the knowledge it imparts to people in subordinate positions that they do not have to work at one job until they are too old for the job ahead. Additionally, it relieves a man of full-time duties at an age when he can still look forward to doing some of the things he wants to do.

Since 1948, the age of compulsory retirement of officers has been consecutively reduced by six months each year, so that in 1953 retirement will be mandatory at 65. Mr. Brown's chief joy has been in seeing others move ahead and his greatest satisfaction is in the many friendships he has made.

Mr. Brown will retain close ties with the Reading as a member of the board and chairman of the executive committee. He expects to keep busy as president of the Philadelphia chapter of the Boy Scouts, 16,000 strong, and to continue his activities in connection with the United Fund charities. He is now chairman of the Eastern Pennsylvania Enterprise Council of the Transportation Association of America, and will take over the general chairmanship of the association's Central Atlantic forum.

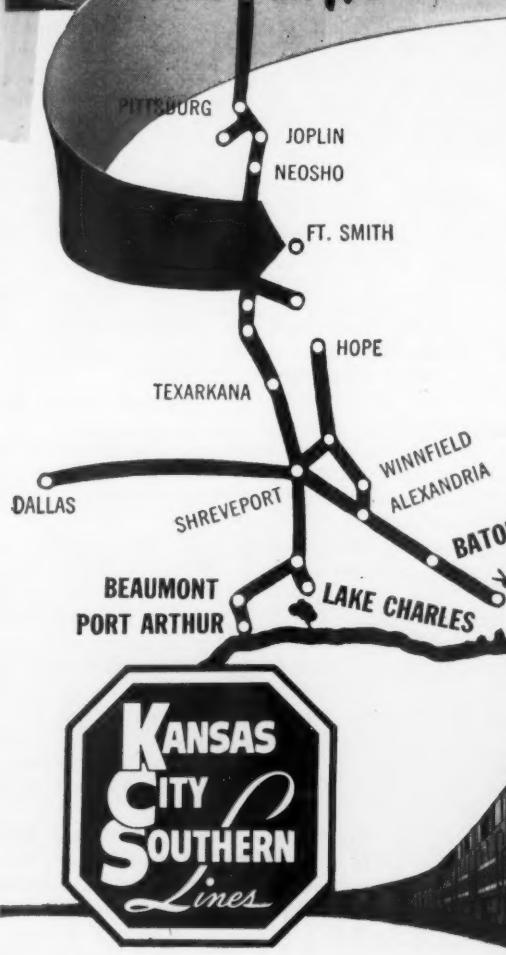
Mr. Brown insists that "all the glory should go to the new man," but is justifiably proud of his lively career. He was born at Carlyle, Ill., on August 5, 1883, and entered railroad service direct from the public schools in 1901 as a laborer on the Baltimore & Ohio. He served subsequently with the B. & O. as fireman and engineer. In 1910 he was promoted to air brake instructor, then to assistant road foreman of engines. After a few minor moves, he was appointed, in 1917, trainmaster at Wellston, Ohio, then at Toledo, where, in 1917, he became assistant superintendent. In 1919 he went to Connellsville, Pa., as superintendent, and later to Cumberland, Md. In 1926 he was made general superintendent of the Maryland district where his performance led to his appointment, in 1930, as general manager of the Central of New Jersey. A year later, Mr. Brown became vice-president and general manager of the Jersey Central, and, in 1935, vice-president of the Reading and the C. of N. J. In 1941, he was elected president of the Lehigh Valley. On July 1, 1944, Mr. Brown was elected president of the Reading.

A notable achievement during Mr. Brown's term as president has been the simplification of the Reading's corporate structure; 21 of 45 subsidiaries and related companies were merged or dissolved. In the seven years 1944 through 1950, gross expenditures for additions and betterments exceeded \$4.1 million for road, and \$25.2 million for equipment. Fixed charges were reduced from \$7.4 million in 1944 to \$5.8 million in 1950 even though, in the same period, total funded debt was increased slightly. The saving in fixed charges was accomplished largely through the elimination of mortgages and collateral trust bonds, and the substitution of equipment trust and conditional sales certificates at low rates to finance locomotives and cars which have permitted important economies in operations.

First With the French.... Then With the Army



KANSAS CITY



NOW FT. SMITH Trades With the World!

IN 1817, when the Army established its Southwestern outpost at the French trading post of Belle Point on the Arkansas river, it became Fort Smith. The city also became the seat of Federal law enforcement for the then wild Indian country between Texas and Kansas, westward to the Rockies.

Ft. Smith—Arkansas' second largest city—still is a trading center, with some of its manufactures, such as furniture, in world-wide demand.

An apparently inexhaustible supply of natural gas and extensive deposits of smokeless coal explain why Ft. Smith is the state's most industrialized city. Lumber, brick, glass, paper and metal containers, feeds and foodstuffs also are important products.

Agriculture and livestock are big business in Ft. Smith, where the Arkansas-Oklahoma Rodeo and the Livestock Exposition attract more than 100,000 people annually.

Important, too, in Ft. Smith's trade picture is our fast diesel freight service to and from Kansas City and Five Great Gulf Ports.

G.W. Scott
Vice President—Traffic

Representing
KCS LINES at FT. SMITH
Eldon D. Pence, General Agent
T. O. Baker, Local Agent

FREIGHT HEADED SOUTH
moves faster via KCS 77—out of
Kansas City at 8:40 nightly.

Communications . . .

Good and Bad Points in Passenger Service

LA CROSSE, WIS.

TO THE EDITOR:

Despite the new equipment, most fast passenger trains are rough-riding. If dynamic balancing of the wheels would help, this should certainly be done. Food service is not as good as it used to be, but that is true everywhere.

I think explanations of why service is as it is and why schedules are arranged as they are ought to be made to the public in the form of leaflets on the train. For example, a streamliner serving my city, since the 40-hour week, has reduced by one or two the number of waiters. This has lengthened the meal period. I believe the public would favor lengthening the meal period as against additional increases in meal costs, but they would like to know why the meal period was lengthened. Also, certain eastern territory trains leave Chicago before complementary western trains arrive. There probably is a good reason, but I think it would be helpful if the traveling public knew that reason.

It seems to me the railroad passenger business is assured of a future if it keeps in touch with the traveling public.

C. D. GELATT
President,
Northern Engraving & Manufacturing Co.

"An Ear on a Tumor"

TO THE EDITOR:

In your editorial on managerial handicaps (*Railway Age*, July 23, 1951) you cite government regulation, complexity of restrictive union rules and socialized competition as factors which hamstring the railroad industry. True enough, but wouldn't a little introspection also be in order. Much of the railroads' troubles are inherent or are bred of stultifying habit.

A medical specialist recently said to a patient, "To me, you are just an ear on a tumor." The condition of the tumor, which was his term for the body, and the effect of its condition on the ear, was of no concern to him. Similarly, nearly everyone in the service of a railroad must be something of a specialist. He is in one department or another, and he is in competition with all other departments when it comes to making a showing or getting appropriations for what he wants to do. Specialization is intensified by the sharp divisions insisted upon by the crafts, and as a result, the creation of supervisory forces is made increasingly difficult. In the past, railroad management was highly neglectful of the supervisory forces it had. The situation for management is, of course, rendered more difficult by the fact that most railroads are spread over large territories and it is necessary to operate by remote control.

The net result is that few railroad men ever acquire an overall understanding of railroad operation until they are approaching retirement age. By that time, they are disinclined to stick their necks out in doing something which might result in their being fired. It is much more comfortable to stay inside the job and retire on a pension.

Management itself can scarcely be blamed for these circumstances. Nearly everyone who becomes a member of top brass, came up through some department, and he is inclined to favor the department with which he is most familiar. As a result, the other departments which do not have an aggressive spokesman, languish for want of attention that is bestowed on someone who may be less deserving.

The cure would seem to be some kind of an engineering coordinator, someone capable of comparing various activities abstractly, who could evaluate the relative efforts which

should be given to different activities. Were he taken from the ranks, he would certainly offend someone and probably get himself fired. But, if he could be assured of his job by contract or perhaps be exchanged with a similar man from another road, he would function as a much needed general practitioner, and supply needed information about the tumor which feeds the ear.

GEORGE A. COLBERT

[The editorial upon which Mr. Colbert comments discussed a large and inadequately recognized handicap which applies uniquely to the railroads. The difficulty of excessive departmental emphasis, to which Mr. Colbert diverts attention, is one which is encountered in every large industry. Few would question his diagnosis — but where has the novel therapy he recommends been tried with success? Most competent books on management suggest practical ways of overcoming excessive departmental emphasis; and some railroads are actively adopting these methods. To us, they appear more persuasive than Mr. Colbert's prescription. We've never heard of a "coordinator" yet who ever succeeded in getting anything coordinated.—EDITOR]

Our Thanks to Professor Miller

PITTSBURGH 13, PA.

TO THE EDITOR:

I think I need not tell you that I read the *Railway Age* from week to week with keen interest. You do an excellent job in gathering interesting material and in presenting it, as well. It is no small task to interest continuously as diverse a group as you have among the readers of the "Age." One of the things I particularly like is the almost invariable soundness of your judgment — measured by my standards, of course. While the "Age" is spokesman for the railroads, it maintains an independence infrequently found in a publication which serves a particular industry. There is frequent evidence, particularly in the editorials, of original thinking — thinking that "breaks ground" rather than being stereotyped. For your success, I congratulate you!

SIDNEY L. MILLER,
Head, Dept. of Transportation
The University of Pittsburgh

[To such a letter our only reply must be that we shall strive hard to deserve the reputation Professor Miller so generously accords us.—EDITOR]

Says Speed, Not Rates, Is the Trucks' Big Advantage

BATON ROUGE, LA.

TO THE EDITOR:

I thought that I should call your attention to the fact that whereas freight rates probably influence trucking to some degree, the major reason why people ship by truck is because of speed.

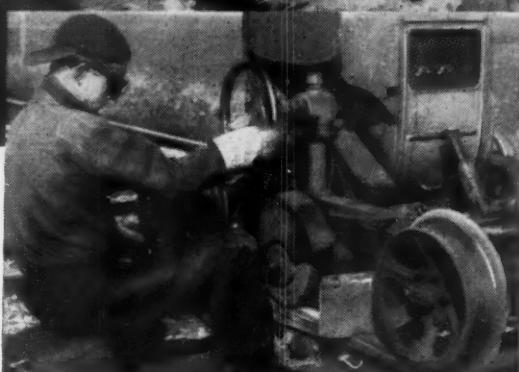
I was talking to one of the local merchants recently on the subject, and he told me about a certain shipment which was shipped by rail by mistake. He said that by truck it would have been delivered to his customer the next day, and by rail after ten days had not yet been delivered.

Our gravel plant is approximately 60 miles from Baton Rouge. By truck we get over-night delivery from Baton Rouge but via railroad, it takes from a week to ten days. Up at Walden, N. Y., where I have a manufacturing business, most of our customers specify truck delivery because the trucks usually get their shipments to them faster than they are received by rail.

It would seem to me that the railroads should have their own pick-up and delivery trailers and/or containers. Furthermore, the railroads should develop some sort of a union l.c.l. station to facilitate quick transfer from one road to the other.

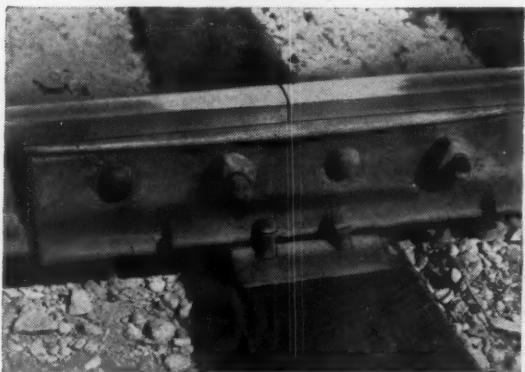
PAULSEN SPENCE
President
Gulf Sand & Gravel Corp.

Smooth rails for smooth rolling on The M. & St. L.



An electric grinding machine restores the rails to their original shape and smoothness. Experienced crews use mobile equipment for the entire operation.

Smooth rails for smooth rolling on the M. & St. L.—all accomplished without removing a rail from the track, even temporarily.



Electric welding rebuilds battered rail ends on the M. & St. L. The rail ends are first heated, then new steel added as shown above.

The rail ends on any track take terrific pounding from fast-rolling car and locomotive wheels. Rail joints, if neglected, become rough. The resulting jars and vibration can damage freight shipments.

Not so on the Minneapolis & St. Louis Railway! Rebuilding of battered rail ends by electric welding is part of its program of track maintenance to keep rails smooth and even. The work, along with renewal of ties and ballast, goes on constantly, except in the cold of winter.

Here's evidence again of how no detail is neglected that makes for smooth rolling of M. & St. L. fleets of modern cars and Diesel locomotives. On the M. & St. L., it's attention to all details that insures

Fast, Dependable Freight Service



The MINNEAPOLIS & ST. LOUIS Railway

111 East Franklin Avenue, Minneapolis 4, Minnesota

GENERAL NEWS

(Continued from page 41)

New "Railway Accounting Rules" Being Distributed

The latest edition of "Railway Accounting Rules," which is published by the Accounting Division, Association of American Railroads, is now being distributed, according to an announcement by Division Secretary E. R. Ford. The edition, known as the October 1, 1951 edition, will supersede on that date the presently-effective December 1, 1950, edition.

Mr. Ford's announcement said "substantial" changes make it "essential" that copies of the new edition be placed "in the hands of all officers and employees engaged in interline accounting work. The announcement also stated that, pursuant to the usual practice, one copy will be furnished without charge to each accounting officer who is

a member of the Accounting Division.

Additional copies may be obtained by member roads and their employees for 75 cents each when ordered in quantities of 10 or more, and for \$1 each when ordered in quantities of less than 10. Prices to non-member roads and others are double the foregoing. Orders should be placed with Mr. Ford, Transportation building, Washington 6, D. C., with remittances made payable to the A.A.R.

Pullman-Standard Plants Still Closed by Strike

The Butler, Pa., Bessemer, Ala., and Hammond, Ind., plants of the Pullman-Standard Car Manufacturing Company remained closed as of August 28, as federal conciliators began a series of meetings with the striking union (United Steelworker of America — C.I.O.) and representatives of the company at Chicago.

Another plant at Michigan City, Ind., has not been affected by the walkout and is continuing car production—but with a dwindling inventory of parts

that are normally furnished by the Hammond plant. When the strikes began in July (*Railway Age*, July 30, page 43), the Michigan City plant had an estimated 60-day inventory of parts with which to continue production.

A company spokesman said that even with the federal conciliation service working on the case, there was little hope of an early settlement. The closed plants normally account for about two-thirds of Pullman-Standard's total freight car output.

Examiner Rice Criticizes State's Highway Subsidies

An examiner of the Interstate Commerce Commission has denounced state highway policies in Louisiana as being "very injurious" to railroads, while providing indirect subsidies "of material value" to truckers. He said there is "no intimation" of public need for subsidizing the truckers, and the net effect of such a policy is that motor carriers can maintain rates that take business away from the railroads.

Examiner Claude A. Rice, in a proposed report on intrastate rail rates in Louisiana, advised the commission that any increase in rail rates would merely divert more traffic to trucks. The railroads had asked the commission to overrule the Louisiana Public Service Commission by ordering increases in intrastate rates in line with the Ex Parte No. 168 interstate increases.

The effect of such increases would be to give more business to the trucks, Examiner Rice said. But then he unloaded on what makes this so.

"Evidence (by the Louisiana commission) indicates that the ability of motor carriers to take freight traffic from the railroads by reason of lower rates has been and is due largely or entirely to inequality of treatment accorded rail and motor carriers by the Louisiana state authorities," he declared.

"The petitioning railroads provide and maintain at their own expense, and pay taxes on, their respective rights of way and trackage. The competing motor carriers do not operate on either that basis or a comparable basis. It is not shown that they have any funds invested in the public highways over which they travel, any fixed interest charges to pay on such an investment, that they pay property taxes to the state based on the value of those roadways, or that they pay more than a minor fraction of the annual cost of highway construction, reconstruction, and maintenance."

The examiner then pointed out that the cost of constructing and maintaining highways in Louisiana in 1950 was \$10,314,095. This exceeded by 54 per cent the gross intrastate freight revenue reported by motor carriers operating on the state's public highways. Their entire gross was \$6,676,122.

Examiner Rice also noted that about \$7,000,000 a year is contributed to (Continued on page 77)



FEW CORPORATIONS ever have occasion to provide their stockholders with any sort of financial or operating summary beyond their regular annual reports. But the Illinois Central, now entering its second century of service, has developed a "Centennial Report"—a 52-page brochure chronicling income, expense, traffic, property, equipment, debt, public and employee relations, and executive personnel since the road's charter was first signed by Illinois Governor Augustus C. French on February 10, 1851.

Profusely illustrated, the "Centennial Report" is, in effect, a short history of the I.C.'s first 100 years. But it is also corporate report in the traditional sense, as it contains a 100-year record of the road's income, its traffic

and its comparative balance sheets, by decades. It tells, for instance, that in the past 100 years, the I.C. has earned total operating revenue of \$7,328,000,000, from which operating expenses have taken \$5,433,000,000, and that the net income for the century was \$611 million. All major departments of the railroad had a hand in writing this unique report, which was prepared under the direction of Vice-President F. E. Martin. It is printed in blue, gold and brown. Copies have been distributed to all I.C. stockholders, and to a large number of schools, newspapers, and local and financial libraries throughout the country. Persons interested in obtaining a copy may do so by writing to A. L. Church, secretary, Illinois Central, 135 East 11th place, Chicago



On Tap...

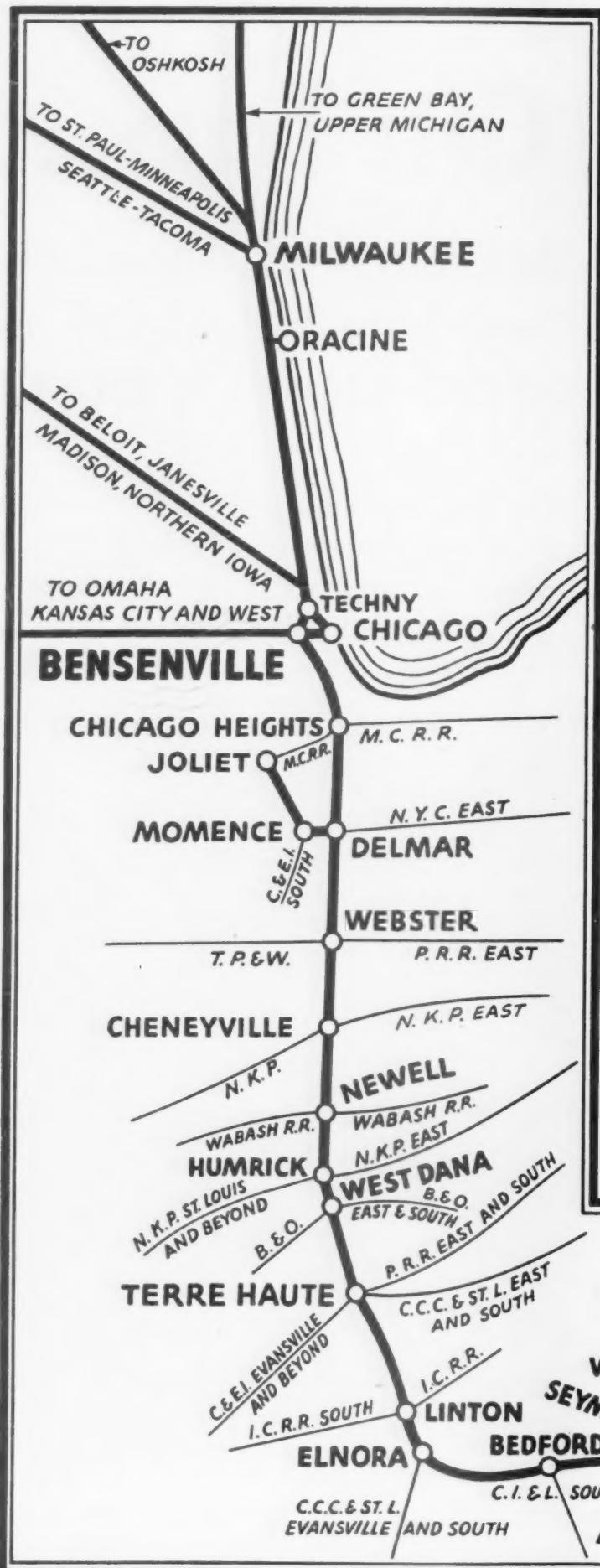
**Vast Stands of Southern Pine
Contribute Heavily to the
NAVAL STORES INDUSTRY**

FROM the pine forests of the southeast flows the life blood of the naval stores industry. Rosin and distilled turpentine provide the basic ingredients for many diversified products.

The continuous movement of rosin and turpentine from the forests — to the processors — to the markets is an important transportation responsibility performed by *Coast Line*.



ATLANTIC
COAST LINE
RAILROAD



Looking for expedited through service?

Route your freight via
The Milwaukee Road's
TERRE HAUTE DIVISION

Shippers all over America expedite freight movement by this routing.

The Terre Haute division via Bensenville connects all points north, northwest and west of Milwaukee, and west of Chicago with lines to and from the South and East.

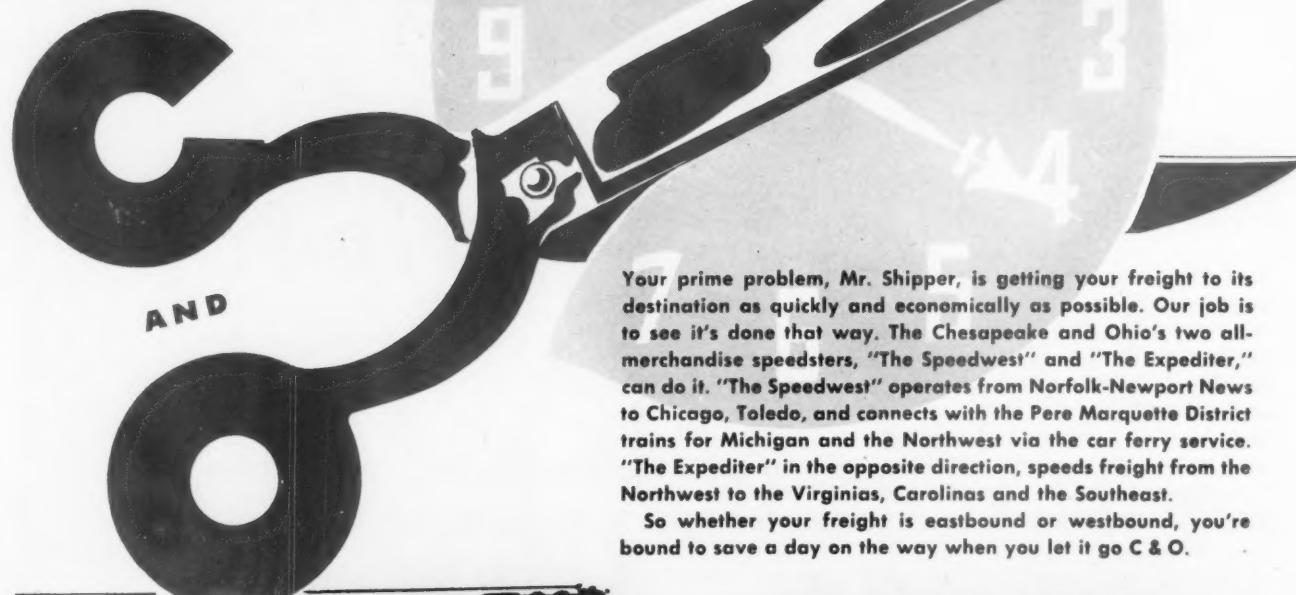
Your Milwaukee Road representative can tell you how you can benefit from this through freight service, or write to

H. S. ZANE
Freight Traffic Manager
Chicago, Illinois

THE MILWAUKEE ROAD

The map tells the story!

Let C & O cut Distribution Time, Mr. Shipper!



Your prime problem, Mr. Shipper, is getting your freight to its destination as quickly and economically as possible. Our job is to see it's done that way. The Chesapeake and Ohio's two all-merchandise speedsters, "The Speedwest" and "The Expediter," can do it. "The Speedwest" operates from Norfolk-Newport News to Chicago, Toledo, and connects with the Pere Marquette District trains for Michigan and the Northwest via the car ferry service. "The Expediter" in the opposite direction, speeds freight from the Northwest to the Virginias, Carolinas and the Southeast.

So whether your freight is eastbound or westbound, you're bound to save a day on the way when you let it go C & O.

The Expediter

From the Northwest—Chicago, Detroit, Toledo, Cleveland to the Virginias, Carolinas and the Southeast.

SCHEDULE

Lv. Milwaukee (C & NW)	3:45 PM Mon.
Lv. Milwaukee (GM St P & P)	8:15 PM Mon.
Lv. Kaukauna (GB & W)	11:55 PM Mon.
Lv. Manitowoc	11:55 PM Mon.
Lv. Ludington	8:30 AM Tues.
Lv. Grand Rapids	4:30 AM Tues.
Lv. Detroit (Rougonmore)	8:15 PM Tues.
Lv. Toledo	8:00 AM Wed.
Lv. Columbus	2:00 PM Wed.
Ar. Russell	5:00 PM Wed.
Lv. Chicago (Clearing)	5:00 PM Tues.
Lv. Chicago (Union Stock Yards)	7:00 PM Tues.
Lv. Chicago (Burnham)	9:45 PM Tues.
Ar. Cincinnati (Cheviot Yard)	8:05 AM Wed.
Lv. Cincinnati (Stevens Yard)	3:15 PM Wed.
Ar. Russell	8:15 PM Wed.
Ar. Lynchburg	8:35 AM Thurs.
Ar. Richmond	2:30 PM Thurs.
Ar. Newport News	8:30 PM Thurs.
Ar. Norfolk (Seawall Point)	11:30 PM Thurs.

The Speedwest

From the Virginias and Carolinas and the Southeast to Chicago, Toledo and Points West.

SCHEDULE

Lv. Norfolk (Seawall Point)	12:30 AM Mon.
Lv. Newport News	4:30 AM Mon.
Lv. Richmond	8:45 AM Mon.
Lv. Lynchburg	3:15 PM Mon.
Ar. Russell	8:25 AM Tues.
Lv. Cincinnati (Stevens Yard)	9:25 AM Tues.
Lv. Cincinnati (Cheviot Yard)	1:00 PM Tues.
Ar. Chicago (Produce Terminal)	2:30 AM Wed.
Ar. Chicago (Union Stock Yards)	4:30 AM Wed.
Ar. Chicago (CR & I RR & CJ Ry)	5:00 AM Wed.
Ar. Chicago (Clearing)	12:01 PM Wed.
Ar. Russell	7:40 AM Tues.
Ar. Columbus	12:01 PM Tues.
Ar. Toledo	5:10 PM Tues.
Ar. Detroit (Rougonmore)	2:30 AM Wed.
Ar. Grand Rapids	12:30 PM Wed.
Ar. Ludington	3:00 PM Wed.
Ar. Manitowoc	3:45 PM Wed.
Ar. Kaukauna (GB & W)	10:30 PM Wed.
Ar. Milwaukee (GM St P & P)	2:30 AM Thurs.
Ar. Milwaukee (G & NW)	10:15 AM Thurs.

THE



HESSIE ROUTE FOR **FAST FREIGHT**

CHESAPEAKE AND OHIO RAILWAY



got a TARIFF gripe?

Got a gripe about complex freight tariffs? Your ideas for tariff simplification are WANTED NOW by the organization set up by the railroads to seek a solution to this problem. Here is the chance you've wanted to get it off your chest and help us find the answer. All suggestions will be cheerfully received and carefully considered. Send them to:

RAILROADS' TARIFF RESEARCH GROUP

**Chas. S. Baxter, Chairman
Transportation Bldg.,
Washington, D. C.**

Fred Carpi
Chairman, Railroads'
Administrative Committee

John W. Peters
Chairman, Cooperating
Committee, National
Industrial Traffic League



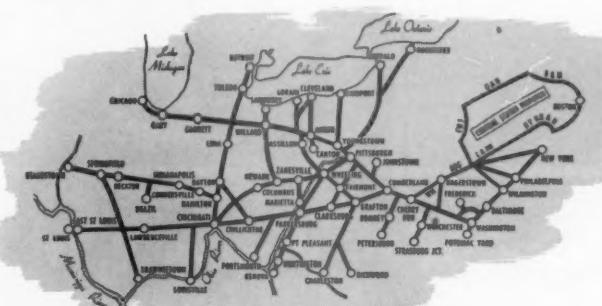
NEW MIGHT FOR THE

The strength of our country is built on steel—and on the industry that produces it. Right now, that industry is in the forefront of our preparedness effort—devoting a large share of its vast capacity to turning out the varied materials so vital for defense.

We of the Baltimore & Ohio fully appreciate the mighty accomplishments of the steel industry. For we, too, have had to gird ourselves for greater effort—to call forth all our railroading skill—to make our plant and equipment function at utmost effectiveness.

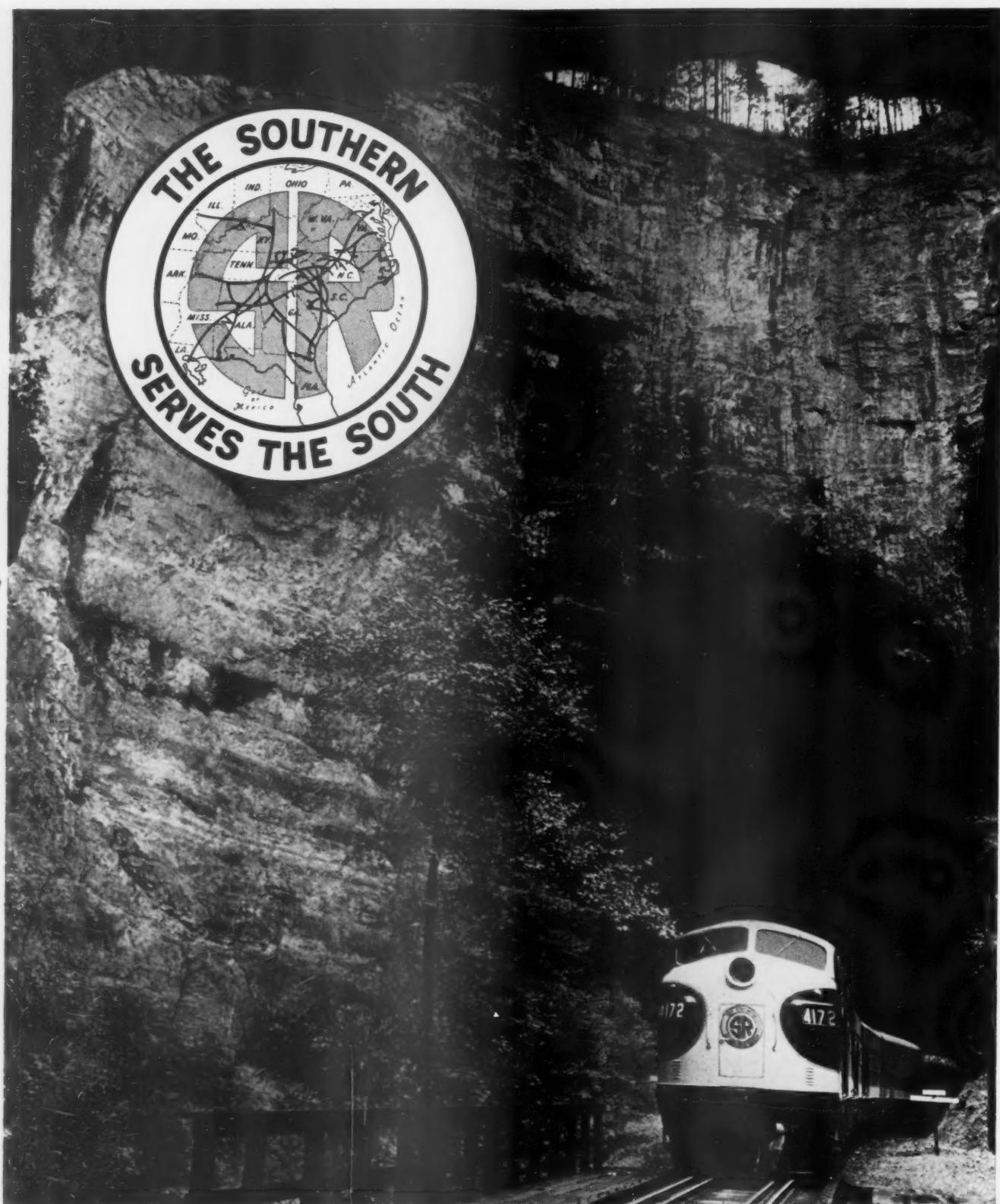
Hour after hour, in an ever-increasing stream, the products of roaring steel mills speed over our

railroad to the defense lines of the nation. We are proud to join the other railroads in again demonstrating our efficiency—and *indispensability*—in meeting the Nation's needs.



BALTIMORE & OHIO RAILROAD
Constantly doing things—better!

Constantly doing things—better!



BOTH ARE "NATURALS"! . . . Like unique Natural Tunnel on our railway in Virginia, the Southern Railway System is a "natural" too . . . for efficient, dependable transportation service. Our lines serve every state, except West Virginia, south of the Potomac and east of the Ohio and Mississippi Rivers. To, from and within this area, you can ship with confidence via **SOUTHERN RAILWAY SYSTEM**.

(Continued from page 70)

Louisiana highway construction by the federal government, while other highway funds come from automobile licenses, gasoline taxes and other state taxes.

"There is no showing that any substantial part of the highway fund is paid by motor carriers of freight for hire," he concluded.

This investigation of rail rates in Louisiana was instituted in March at the request of 38 railroads. The roads claimed that failure of the Louisiana commission to authorize Ex Parte 168 increases on all commodities constituted discrimination against interstate commerce and undue preference for intrastate traffic. Seven commodities were involved, and the railroads estimated they were being deprived of \$400,000 in annual revenue by failure of the state commission to approve increases.

Rock Island Seeks to Cut 14 Suburban Trains

The Rock Island has asked the Illinois Commerce Commission for permission to discontinue five Chicago-Blue Island and Chicago-Joliet suburban trains and to consolidate 18 additional trains into "compromise" schedules between those points.

The road told the commission that loss of revenues from mail contracts which the post office recently awarded to truckers and a general decline in suburban patronage (from over 11 million in 1946 to about 8.5 million in 1950) have increased operating losses, which have reached \$1 million a year. Prior to the awarding of mail contracts to highway carriers, the Rock Island carried the largest share of mail between Chicago and Joliet (population, 52,000). In the petition, no estimate was made of revenues lost to truck haulage of mail. The petition did state, however, that discontinuance of the 14 trains would "substantially"



TWENTY-FIVE of these 70-ton, all-steel hopper cars have been leased to the Mathieson Chemical Corporation by Shippers' Car Line Corporation, a subsidiary of the American Car & Foundry

Co. The cars were built at ACF's Berwick, Pa., plant. They weigh 50,800 lb. and have a load-limit capacity of 159,200 lb. The trucks are A.S.F. A-3 Ride Control with 2½-inch springs

reduce losses incurred by suburban operations.

Old Cast Iron Car Wheels Will Help Make New Ones

Cast iron car wheels which are scrapped each year—amounting to about 550,000 tons—will henceforth be used only in the production of new cast iron wheels, according to a recent order issued by the National Production Authority.

About 130,000 cast iron car wheels are needed each month for maintenance and repair, N.P.A. announced. It said this means a monthly requirement of about 46,000 tons of cast iron to keep freight cars in repair.

The new order provides that no person shall deliver or accept delivery of more than 10 tons of used cast iron car wheels in any one month, except as authorized by N.P.A. Producers of new cast iron wheels must certify in purchasing used wheels that the metal will go into the production of new freight car wheels.

I.C.C. Permits Round-Trip Fare Increase in East

Small increases in round-trip passenger fares have become effective in Eastern territory, following refusal of the Interstate Commerce Commission to suspend railroad tariffs placing the increases in effect.

The higher round-trip fares became effective within the territory August 20. Other tariffs, reflecting changes in inter-territorial fares as a result of the Eastern increase, became effective up through September 1.

Permission to file tariffs increasing round-trip fares in the East was

granted 32 railroads in mid-July (*Railway Age*, July 23, page 52). The roads proposed that round-trip coach fares be made subject to a maximum reduction of 15 per cent below double the one-way fare, and that round-trip first-class fares be made subject to a maximum reduction of 5 per cent.

The Office of Price Stabilization was among those opposing the railroads. O.P.S. said the proposal "may be inflationary in effect," and asked the commission to suspend the tariffs and hold public hearings.

I. F. Lyons Killed In Plane Crash

Irving F. Lyons, who retired last fall as president of the National Industrial Traffic League, was among the 50 persons killed on August 24 in the crash of a United Air Lines plane near Oakland, Cal.

Mr. Lyons, who was 58 years old, handled legal work for the California Packing Corporation and the Canners' League of California. He represented vegetable and fruit processors in that state at rate hearings before the Interstate Commerce Commission. Before joining California Packing 37 years ago, Mr. Lyons had worked for the Southern Pacific.

New L.C.L. Interchange Set-up for St. Louis

Under the terms of a new contract which became effective on September 1, Ben Gutman Truck Service, Inc., of St. Louis began handling all l.c.l. interchange between 18 eastern and western railroads in the St. Louis area. This traffic was formerly handled by Colum-

(Continued on page 80)

Car Surpluses and Shortages

Average daily freight car surpluses and shortages for the week ending August 25 were announced by the Association of American Railroads on August 30 as follows:

	Surplus	Shortage
Plain Box	0	7,125
Auto Box	98	82
Total Box	98	7,207
Gondola	0	5,035
Hopper	0	4,340
Covered Hopper	0	80
Stock	901	108
Flat	6	1,063
Refrigerator	3,138	0
Other	211	19
	4,354	17,852

Famous Routes of History

Through the Southeast
with De Soto

Hernando De Soto landed in Florida in 1539 and took three years to explore routes in the Southeast. But you'll have no exploration problems when you specify SEABOARD routing.

Your Modern Route to and from The Southeast —

Seaboard knows the Southeast — and your specific problems in shipping to and from this progressive region. Personalized attention to your instructions is a feature of Seaboard service.

Your nearest
Seaboard Freight Traffic
Representative will
cheerfully furnish infor-
mation upon request.



THE ROUTE OF COURTEOUS SERVICE



BACK IN UNIFORM

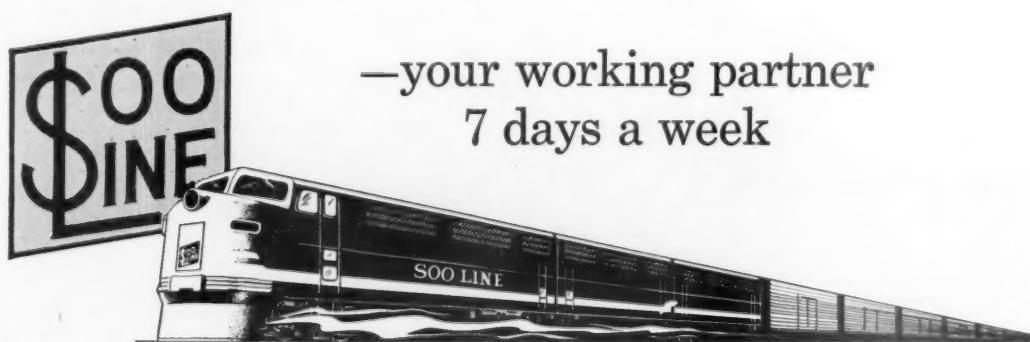
Guns for troops or toys for children, the Soo Line stands ready to roll 'em. Whatever you make, or may be called upon to make, the Soo Line will deliver—from Michigan to Montana, from Chicago to Vancouver—everywhere Soo Line Land.

Supplying the freight space is the Soo Line's ever-lengthening string of modern rolling stock; packing the

power to move it fast and sure is an expanding fleet of powerful Diesel-electric locomotives. Providing the know how are trained-to-the-minute Soo Line freight handling teams.

To get your shipments to the right spot at the right time, *specify Soo Line*—to and thru Canada and the 7-State Soo Line Land.

—your working partner
7 days a week



(Continued from page 77)

bria Terminals, Inc., which has elected to enter the field of common carrier trucking.

Arthur K. Atkinson, president of the Wabash, represented the 18 rail carriers during the negotiations. The contract is expected to remain in effect for six years, although some phases of it may be subject to renegotiation at an earlier date under specified conditions. The 18 railroads include all members of the Terminal Railroad Association of St. Louis (though each acted individually and not through the association), plus the Illinois Terminal, the Litchfield & Madison and the Southern.

To carry out the service, the Gutman organization has purchased some 300 new trailers at a reported cost of more than \$1 million.

11-Year Track Program On N.P. Nears Completion

The Northern Pacific's \$11.2-million main-line track relocation program, begun in 1940, neared completion last week with the opening of a five-mile section of new line in eastern Montana. To date the program has resulted in elimination of 123 curves and reduction of 189 more. Almost the entire main line from St. Paul to Seattle has been rock ballasted and equipped with heavier rail, and 109 miles of track have been relocated.

The new line in Montana is located between Glendive and Wibaux. At a cost of about \$400,000, 12 heavy curves were reduced to two light curves, thereby permitting train operation up to 75 m.p.h. where 40 m.p.h. had previously been the top permissible speed.

Ten miles of welded rail in continuous lengths are currently being laid between Big Timber and Greycliff. This is the first time that the N.P. has installed welded rail at locations other than in tunnels. This work will probably be completed about October 1.

A grading contract has been let for a line change at the east end of the Missouri River bridge near Bismarck, N. D., which will reduce two curves and stabilize a slide area. Approximately 3,000 feet of track there will be relocated. The James Construction Company, St. Paul, and Haagenson & Tranby, McIntosh, Minn., have a contract covering 710,000 cu. yd. excavation. It has been estimated that the entire project—scheduled for completion early next winter—will cost \$350,000.

1951's 1st-Quarter Loading Estimate Was 3.5% Low

The 13 Regional Shippers Advisory Boards underestimated carloadings for the first quarter of 1951 by 3.5 per cent, according to the latest comparison of forecasts with actual loadings. Chairman A. H. Gass of the Car Service Division of the Association of

American Railroads, issued the comparison

It showed underestimates by 11 boards and overestimates by the two others. By commodity groups there were 23 underestimates and nine overestimates. The range was from an underestimate of 45.7 per cent in the case of hay, straw and alfalfa to an overestimate of 18.9 per cent in the case of potatoes.

In addition to that on hay, straw and alfalfa, there were underestimates of more than 10 per cent for 12 other commodity groups. Only two of the overestimates, including that on potatoes, were more than 10 per cent off. The other was an overestimate of 10.1 per cent on fertilizers, all kinds.

COMPARISON: ESTIMATED NATIONAL FORECAST, REGIONAL SHIPPERS ADVISORY BOARDS, WITH ACTUAL CARLOADINGS, FIRST QUARTER 1951

Board	Carloadings First Quarter 1951 Estimated	Actual	Percentage of Accuracy Over Under Est'd. Est'd.
Central Western	269,337	285,478	6.0
Pacific Coast	319,436	339,956	6.4
Pacific Northwest	208,813	220,162	5.4
Great Lakes	449,826	472,257	5.0
Ohio Valley	942,699	966,671	2.6
Mid-West	835,912	837,204	0.2
Northwest	241,180	245,304	1.7
Trans-Mo-Kansas	339,141	368,513	8.7
Southeast	931,580	1,037,281	11.3
Southwest	484,777	512,180	5.7
New England	138,371	133,465	3.5
Atlantic States	777,208	785,333	1.0
Allegheny	988,639	967,157	2.2
Totals	6,926,919	7,170,961	3.5%

National Malleable to Build New Rail Lab

The National Malleable & Steel Castings Co. will build a new physical testing laboratory for railway engineering development work, at Cleveland, at a cost of \$750,000. Kenneth L. Selby, chief engineer of the railway division, will direct the activities of the laboratory.

The building and test tracks will occupy approximately five acres of land acquired for this purpose and the main laboratory building, to be located on Woodhill road and Woodland avenue adjacent to the company's Cleveland works, will have about 14,000 sq. ft. of space, with completely independent service facilities.

Amortization Certificates Go To Twelve More Roads

Certificates of necessity authorizing accelerated amortization of facilities for tax purposes were awarded to 12 railroads during the period of August 3-17, according to announcements by the Defense Production Authority. The certificates were issued by D.P.A. upon recommendation by the Defense Transportation Administration.

This is the last group of certificates to be issued prior to the 60-day moratorium recently ordered by Defense Mobilizer Charles E. Wilson. The moratorium became effective August 18. Certificates may be issued after

that date, but only in "urgent" cases. (*Railway Age*, August 20, page 60).

Railroads receiving certificates in the final group, together with amounts involved, are listed below. The percentage figure shows in each case the proportion that can be written off in five years.

Bessemer & Lake Erie, \$4,400,000 (for hopper cars), 80 per cent.
Chicago, Indianapolis & Louisville, \$627,500, 80 per cent.
Chicago & North Western, \$7,481,384, 65 per cent.
Elgin, Joliet & Eastern, \$6,965,000, 80 per cent.
Great Northern, \$669,500, 80 per cent.
Illinois Central, \$8,160,124, 65 per cent.
International-Great Northern, \$2,432,000, 80 per cent.
Louisville & Nashville, \$5,021,620, 80 per cent.
Missouri Pacific, \$327,560, 80 per cent.
St. Louis, Brownsville & Mexico, \$2,432,000, 80 per cent.
Union Pacific, \$5,406,820, 65 per cent.
Western Railway of Alabama, \$270,603, 80 per cent.

Military Packaging Course Established at Toledo

A joint military packaging course has been established by the Department of the Army at Rossford Ordnance Depot, Toledo, Ohio, to train Army, Navy, Air Force and Marine Corps personnel and personnel from industry at the foreman or supervisory level in basic methods of military preservation, packaging, packing and marking. The course is a continuing one, with classes of two weeks duration starting each week.

Applications from firms interested in having representatives attend the course should be directed to the Officer-in-Charge, Joint Military Packaging Course, Rossford Ordnance Depot, Toledo. Civilian firms must furnish at least one of their current military contract numbers and a brief description of material or equipment being supplied under contract.

If training needs increase, establishment of additional courses at other locations will be considered.

EQUIPMENT AND SUPPLIES

Domestic Equipment Orders Reported in August

Domestic orders for 130 diesel-electric locomotive units and 1,627 freight-train cars were reported in *Railway Age* in August. Estimated cost of the locomotive units is \$21,600,000 and of the freight-train cars \$10,913,000. An accompanying table lists the orders in detail.

During the first eight months of 1951 *Railway Age* has reported domestic orders for 1,696 diesel-electric locomotive units and six steam locomotives costing an estimated \$273,214,777; 63,535 freight-train cars costing an

AN IMPRESSIVE RECORD

THE PROMINENT
CONCERN WHICH USE
AND RECOMMEND
MONON
FAST-FREIGHT SERVICE
TODAY READ LIKE A
“WHO'S WHO”
OF INDUSTRY

Chasen W. Brown
VICE-PRESIDENT

Regular customers are the food upon which a business lives and grows. The railroad business is no exception.

Since its reorganization and complete modernization, five years ago, the number and character of concerns now using Monon Fast Freight service regularly, has increased steadily.

These Monon customers—including many prominent concerns known the nation over—are your assurance that Monon fast freight service is modern and dependable.

Monon solicits your next shipment. Whether it is a crate or a carload it will receive Monon service with a *plus*.



MONON

THE HOOSIER LINE



CHICAGO, INDIANAPOLIS AND LOUISVILLE RAILWAY COMPANY



22 Monon Agencies serve the nation

There are 22 on-line and off-line agencies serving shippers across the nation. Why not contact the one nearest you?

Locomotives					
Purchaser	No.	Type	Issue Reported	Builder	
C. & E.I.	4	1,500-hp. Gen. Purpose	Aug. 6	Electro-Motive	
M.P.	18	2,250-hp. Passenger	Aug. 13	Electro-Motive	
	55	1,500-hp. Rd.-Sw.	Aug. 13	Electro-Motive	
	40	1,500-hp. Freight	Aug. 13	American-G.E.	
	13	1,000-hp. Switching	Aug. 13	Baldwin-Lima-Hamilton	
Freight Cars					
A.T. & S.F.	150	70-ton Gondola	Aug. 6	R.R. Shops	
D. & R.G.W.	25	70-ton Cov. Hopper	Aug. 20	Pullman-Standard	
D.T. & I.	100	70-ton Cov. Hopper	Aug. 20	Amer. Car & Fdy.	
G.T.W.	350	50-ton Box	Aug. 20	Amer. Car & Fdy.	
	250	70-ton Trip. Hopper	Aug. 20	Amer. Car & Fdy.	
G.M. & O.	253	95-ton Hopper	Aug. 27	Pullman-Standard	
M.D. & S.	2	Caboose	Aug. 20	Intl. Ry. Car	
Southern	300	70-ton Hopper	Aug. 6	Pullman-Standard	
Tenn. Central	200	50-ton Hopper	Aug. 20	Pullman-Standard	

estimated \$365,913,000; and 122 passenger-train cars costing an estimated \$17,485,000.

FREIGHT CARS

Pennsylvania's Freight-Car Program Is 90% Complete

The Pennsylvania's program to build new and rehabilitate 60,000 freight cars has been 90 per cent completed. About 54,000 new and rehabilitated cars, 27 per cent of the road's total, have been placed in service. New gondola, box and flat cars, totaling 14,500 units, have been delivered as part of orders for 20,250 new cars. In addition, 6,600 new cars were built in the road's own shops on earlier orders. About 1,190 additional new cars were scheduled for August delivery and 800 more this month. Thirty-three thousand rehabilitated box, gondola and hopper cars have also been put back into service.

The program, involving an expenditure of \$223,000,000, has increased the road's freight-carrying capacity by 10 per cent over 1950. It is part of an overall equipment project nearing completion at a cost of \$588,850,000, including \$276,100,000 for diesel-electric locomotives.

LOCOMOTIVES

The Atlanta & St. Andrews Bay has ordered from the Electro-Motive Division of General Motors corporation two 1,500-hp. diesel-electric locomotive units for delivery next year.

The Erie's board of directors has authorized purchase of 13 additional diesel-electric locomotive units costing an estimated \$1,900,000.

Paul W. Johnston, president, in announcing the authorization, predicted that the Erie probably will be the first fully dieselized trunk line railroad in the east. When delivery is made of the 15 units recently ordered (*Railway Age*, July 30, page 52), together with the 13 just authorized, Mr. Johnston said, the Erie "will be within striking distance of its goal of complete dieselization. Based on the current volume of business, it would take only

approximately \$9,000,000 more to complete the program. How fast we can go toward this goal will depend on our financial ability."

When equipment now on order is received, the Erie will own 427 diesel units. In July the road handled 94 per cent of its freight business with diesels. A year ago 60 per cent of all gross ton-miles were handled with diesels. The increased dieselization program is paying off in higher operating efficiency and economies, Mr. Johnston explained, reflected in such efficiency factors as "miles per car per day," which shows an increase of five per cent over a year ago, and "gross ton-miles per train hour," which set a new high record at 58,400 tons for the first seven months of 1951, an increase of three per cent over last year, the previous high record.

Steam locomotives are now in use on only three of the road's divisions. Ten years ago the Erie had 650 steam locomotives in service, compared now with 127, many of which are in assignments where very little mileage is made.

The Toledo, Peoria & Western has ordered from the Electro-Motive Division of General Motors Corporation two 1,500-hp. diesel-electric road-switching locomotive units at an estimated cost of \$148,000 each.

SIGNALING

The General Railway Signal Company has received orders for 23 sets of intermittent inductive train control equipment. The Budd Company has ordered three sets for installation on diesel cars for the New York Central; and the American Locomotive Company has ordered 20 sets for installation on freight diesels, also for the New York Central.

The Illinois Central has ordered from the Union Switch & Signal Division of Westinghouse Air Brake Company material to install an automatic switching system at the northbound Markham yard, in Chicago. The route selection machine, with push-buttons for selection of routes to the 64 tracks, will be installed in the hump office. In

addition, the order includes manual controls for 13 electro-pneumatic car retarders of the model 31 type, 44 single switches and 9 lap switches; 62 dual-control trailable-type electro-pneumatic switch machines as well as relays, rectifiers and transformers for track circuits to be installed at the 44 switches; switch storage control units, and housings. Field installation will be handled by railroad forces.

The New York Central has ordered equipment from the General Railway Signal Company for installation of a remote control interlocking at Glen, Ind. The control machine, nine miles away at Brant, will have 12 track lights and 10 working levers for control of 6 switch machines and 15 signals.

ORGANIZATIONS

Passenger Officers Plan Convention Aboard Ship

The waters of Lake Huron, Lake Superior, Georgian Bay and Lake Michigan will be the locale of the 88th annual convention of the American Association of Passenger Traffic Officers, which has been announced for September 15-19 aboard the S.S. "South American" of the Chicago, Duluth & Georgian Bay Transit Co.

The passenger men will board the vessel at Detroit and during the five-day meeting will hear from such speakers as William A. Lucking, president, Georgian Bay line; Edward C. Von Tress, manager, Holiday magazine; Kenneth L. Vore, director, Military Traffic Service, Department of Defense; Lawrence C. Mayher, vice-president, Robert Heller & Associates, management consultants; Leonard Hicks, vice-president and managing director, Hotel Congress, Chicago; William A. Patterson, president, United Air Lines, and A. L. Simmons, president, American Society of Travel Agents. The convention will be concluded upon arrival of the "South American" at Michigan Avenue bridge dock (Chicago) at 10:30 a.m. on the 19th. Association President E. J. Goebel is executive vice-president and passenger traffic manager of the Georgian Bay line.

The Freight Claim Division of the Association of American Railroads has selected the Statler hotel in New York for its 1952 business session, which will be held on June 3, 4 and 5.

Following a summer recess, the Chicago Transportation Club will resume its regular monthly meeting schedule with an evening meeting to be held in the La Salle Hotel September 4. The program, to be provided by the educational committee of the club,

HOW YOU CAN MAKE AMERICA STRONG — II

WORK LIKE YOUR LIFE DEPENDED ON IT —IT DOES!



Let's stop talking about this crisis, and *do something*. All the words in the world aren't going to make us strong enough to defend ourselves from attack.

Work will.

Plain, unadorned, dull, routine work.

We are the people who have got to provide the things needed to protect our freedom. Not necessarily working in a defense plant, either. Some of us will be making defense materials, but most of us must remain at our jobs.

And we must work hard at those jobs. We don't have to wait for a go-ahead from the government.

We can start today. Work harder, work better, produce more. The more we put out, the more we produce. Multiply that a few million times, and America has more goods, more products, more wealth, to foot our freedom bill.

It's going to be a big bill.

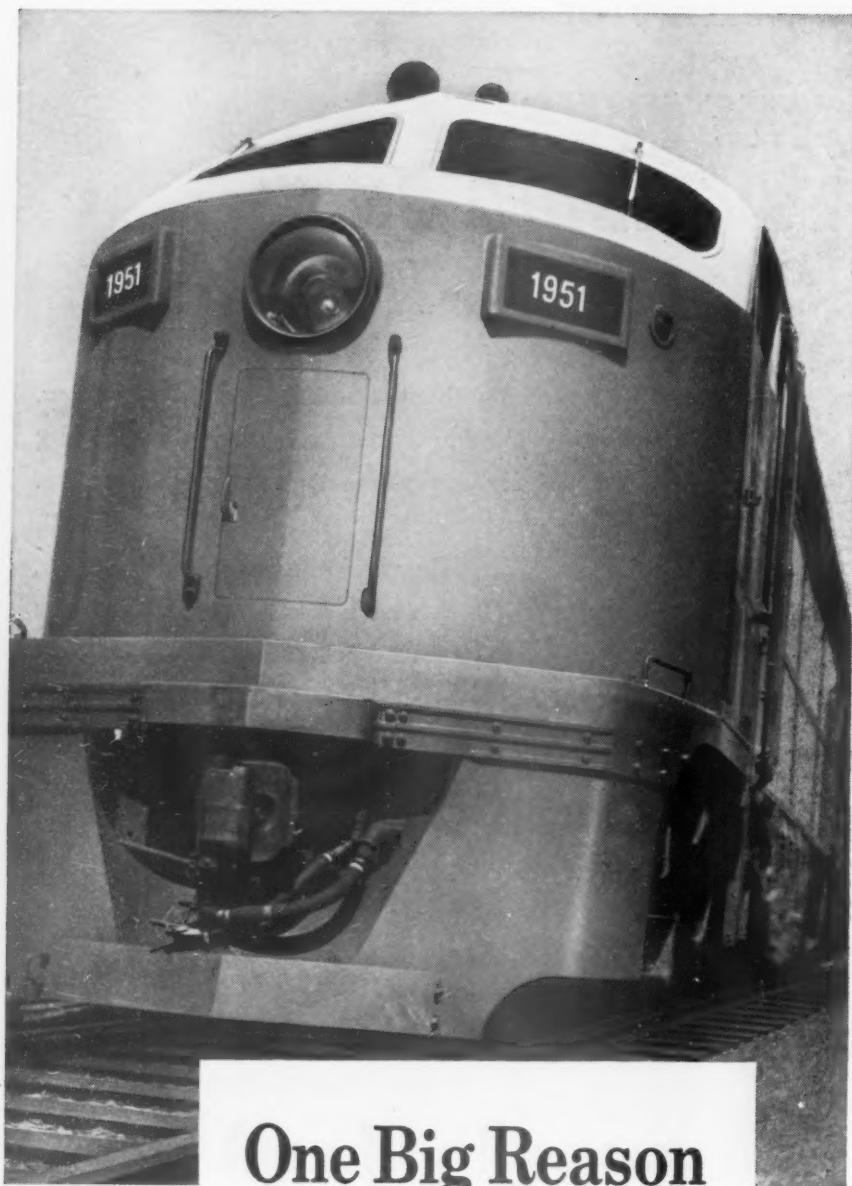
American brawn and brains can pay it.

Let's get going.



Yours is the power to make us strong spiritually, morally, politically and economically. Write today for a reprint of the article, "The Four Pillars of Freedom—Work, Save, Vote and Pray." Mail your request to: J. B. Shores, Public Relations Department, Texas and Pacific Railway, Dallas, Texas. No charge, of course!

★ This is one of a series of advertisements paid for by the Texas and Pacific Railway Company and sponsored in the public interest. Reprints of these advertisements are available from the Texas and Pacific Railway Company, Dallas, Texas.



One Big Reason

why Americans produce more and live better than any other people on earth: This nation has a system of railroads that moves more tons of freight more miles, at a lower average charge, than any other common carrier transportation system in the world.



Listen to THE RAILROAD HOUR every Monday evening on NBC

Association of American Railroads

WASHINGTON 6, D. C.

will deal with four of that committee's activities — the toastmasters forum, the speakers bureau, the speech class and the sales presentation forum.

The **Allegheny Regional Advisory Board** will hold its 65th regular meeting at the Roosevelt Hotel, Pittsburgh, on September 12 and 13.

The 86th regular meeting of the **Pacific Coast Transportation Advisory Board** will be held on September 13 and 14, at the Californian Hotel, Fresno, Cal. E. R. Oliver, vice-president, traffic, of the Southern, at Washington, D. C., will be guest speaker at the luncheon session on the 14th. The luncheon will be sponsored jointly by the **Fresno Chamber of Commerce** and the **Fresno Transportation Club**.

The **Railway Business Womens' Association of Washington, D. C.**, will resume its monthly dinner meetings at the New Colonial Hotel in that city on September 11. The guests of honor will include Sidney Kerl, manager of the Washington Terminal.

The **Women's Traffic Club of San Francisco** will hold an open meeting, jointly with the **San Francisco Traffic Club**, on September 19, at Sigmund Stern Grove, 19th avenue and Sloat boulevard, San Francisco. The principal speaker will be Robert J. Bayer, editor of Traffic World.

The **Southeast Shippers Advisory Board** will meet on September 20 in the St. Charles Hotel at New Orleans. W. S. Hackworth, president of the Nashville, Chattanooga & St. Louis, will be the principal speaker at the luncheon session to be held jointly with the **Traffic Club of New Orleans**.

ABANDONMENTS

Applications have been filed with the I.C.C. by:

CHICAGO, ROCK ISLAND & PACIFIC. — To abandon a 16.7-mile branch between Milan, Ill., and Preemption. The Rock Island Southern, which has been operating the line, has asked for authority to discontinue the operation.

MANCHESTER & ONEIDA. — To abandon its entire line, 8.2 miles, from Manchester, Iowa, to Oneida. The line has been operated at a loss for several years, with no prospects of improvement in the future, the application said.

Division 4 of the I.C.C. has authorized:

CHICAGO & NORTH WESTERN. — To abandon approximately 2.8 miles of branch line between Bryant, Wis., and Polar.

NASHVILLE, CHATTANOOGA & ST. LOUIS. — To abandon a 16.5-mile segment of its line between Union City, Tenn., and Hickman, Ky. Neither present nor prospective traffic is sufficient to warrant retention of the line, the I.C.C. report said.

PENNSYLVANIA. — To abandon its Delaware River ferry service between Philadelphia, Pa., and Camden, N. J., and a 1.02-mile segment of the so-called Cooper's Point branch (operated by the Pennsylvania-Reading Seashore Lines) in Camden. See *Railway Age*, August 27, page 60.

A MILESTONE IN 1851 1951 AMERICAN HISTORY



WHERE THE TRAIN CREW SAYS: "Take it away, Captain!"

● Here is where Erie tracks end on the Hudson River in the great Port of New York and a new chapter begins in the handling of harbor and foreign shipment. Here Erie's unsurpassed facilities—covered and open piers, extensive yards and storage space, and modern handling machinery—save time and expense for shippers.

Erie's fleet numbers 256 vessels, one of the largest in New York Harbor. It ranges from car floats, refrigerated and heated

barges, floating cranes to a fleet of diesel tugboats that keep in touch with shore by radio-telephone. This fleet and Erie's dock and shore facilities contribute to the fine name the Erie has earned in the handling of both domestic and overseas shipments. These foreign freight facilities of Erie are another example of progressive railroading—the all-round, dependable service in the movement of freight that serves industry and our country well, in peace or war!

Erie Railroad

Serving the Heart of Industrial America



Meet Your "No. 1" FREIGHT INFORMATION MAN



**Your Santa Fe Freight Representative
knows the answers to your problems**

Your Santa Fe freight representative is a professional "answer man," with ready access to the collective information, knowledge and "know-how" of Santa Fe's entire organization of transportation specialists.

He is either in your town, or has your town assigned to him. Either way, he is no further away than your telephone.

Call on him freely for expert advice on your shipping problems. Find out why *it pays to ship Santa Fe all the way.*

F. H. Rockwell, General Freight Traffic Mgr.
Santa Fe System Lines, Chicago 4, Illinois

Santa Fe—all the way



SUPPLY TRADE

Raymond Otte, formerly assistant purchasing agent of the Chicago Great Western, will join the **Howard & Gould Co.** on September 4. Mr. Otte will be in charge of the office, and will handle most of the firm's contacts with local purchasing departments.

The **Spring Packing Corporation**, of Chicago, has been appointed exclusive national distributor for the railway products of **Dednox, Inc.**, also of Chicago.

Branson Instruments, Inc., have moved to a new plant at 430 Fairfield avenue, Stamford, Conn.

Effective September 1, the 111-year old **Lyon-Raymond Corporation** of Greene, N. Y., manufacturers of electrical industrial trucks and hydraulic elevating equipment, will be known as the **Raymond Corporation**. The name change was made, according to the company, "because the name Lyon



Andrew J. Wallner (above), has been appointed traffic manager of the Johns-Manville Corporation, and H. F. Washburn (below), assistant traffic manager.



Mr. Wallner was associated with the Clyde-Mallory Lines and the Borden Company before he joined Johns-Manville in 1937. Mr. Washburn joined the company in 1938.



Photo by Josef A. Schneider

I agree with you 100%

You're absolutely right when you say **your** shipping problems are different. No two businesses have the same shipping quirks.

That's why Union Pacific's transportation experience works out so well for you. Knowing the needs of shippers in every class of industry is our business. Our freight representatives are **specialists** in their field, who can back up what they tell you with facts learned during their

years of "on the job training."

There's a U. P. freight man near you. Depend on him for shipping advice, for prompt deliveries, **for every bit of service your shipping dollar entitles you to!**

• • •

Need passenger reservations? All departments of Union Pacific work closely together. The representative you know will be glad to help you with your travel plans.

Be Specific - Ship "Union Pacific"

(Offices in 70 cities throughout the U.S.A.)

UNUSUAL SALE*

used CHAIN CONVEYORS
in top Condition

Railway Express Agency offers for sale overhead tow chain trolley conveyors, together with "I" beam track, roller turns, caterpillar drives, starters and electric motors. Conveyors were used to tow platform trailers, not as load carriers. Consequently, most trackage is in excellent shape. Caterpillar drives and motors have never been subject to overload strain.

Chains are all No. 458, heat treated, rivetless chains, supported on ball bearing trolleys usually spaced at not more than 32". Tracks are 4", 7.7 lbs. high carbon "I" beams and turns are hardened face ball bearing rollers set in frames of 10' to 16' radius.

This sale results from changes in Railway Express handling methods and character of shipments requiring substitution of other types of equipment at the following Express Terminals.

★ Long Island City: Pennsylvania Express Terminal, 39th St. and Northern Boulevard. In place, two separate chains with 208V, 3 phase, 60 cycle motors. Chain "A" is 2060' long with three 20 HP motors and 3 caterpillar drives. Chain "B" is 1833' long with three 20 HP motors and 3 caterpillar drives. Installed by Mechanical Handling Systems, Inc.

★ New York City: West Side Terminal, 10th Avenue and 33rd St. In place, chain 2520' long, with three 20 HP, 220V, 3 phase, 60 cycle motors and 3 caterpillar drives. Installed by Mechanical Handling Systems, Inc.

★ Los Angeles: Express Terminal in Union Passenger Terminal. In place, chain 722' long, driven by one 15 HP, 440V, 3 phase, 60 cycle motor, with caterpillar drive. Installed by Jervis B. Webb Co.

★ Jersey City, N. J.: Garage at 168 York St. In storage, one caterpillar drive of 10 HP capacity and one 10 HP, 220V, 3 phase, 60 cycle motor in need of repairs. Installed by Jervis B. Webb Co.

When operations ceased, all conveyors were in excellent working condition. Now offered for sale separately or by parts, as is, and where is. May be readily inspected. Purchaser can take prompt delivery. Offers should be submitted to General Purchasing Agent, M. L. Tynan, 218 E. 44th St., New York City.



Robert M. Cowdin, who has been appointed traffic manager of the Burroughs Adding Machine Company, at its main plant in Detroit. Mr. Cowdin joined Burroughs in 1946 and was supervisor of domestic traffic until his present appointment

has no connection with present company management, and because it has, on occasion, caused some confusion with other similarly named manufacturers."

Frank M. Ruse has been appointed midwest transportation sales representative for the Mercury Manufacturing Company, Chicago. Mr. Ruse has been associated with sales of industrial trucks as well as



Frank M. Ruse

railroad equipment in the railroad supply industry since 1941. Before he entered the industrial handling field he worked for the Chicago, Rock Island & Pacific and the Austin C. Ruse Railway Supply Company.

Albert G. Moore, director of publicity of the General Railway Signal Company has retired after 40 years of continuous service with that company.

The partnership of Drake, Startzman, Sheahan & Barclay succeeded on June 1 to the consulting business of Drake, Startzman, Sheahan,

Barclay, Inc., distribution and materials handling consultants, 70 East 45th street, New York 17. Albert B. Drake, formerly president of the predecessor company, has retired.

The Flexitallic Gasket Company, Camden, N. J., has appointed Hyslop Brothers, Chicago and Los Angeles, as agent serving the railroad industry.

CONSTRUCTION

Chesapeake & Ohio.—Contracts have been awarded, at indicated probable costs, to: Darin & Armstrong, Inc., for a new freighthouse and office at McGraw, Mich. (\$157,538); the Acme Construction Company, Cleveland, for grading and track work for industrial tracks (estimated to cost a total of \$239,000), at Shandon, Ohio (\$77,234); the Jutton-Kelly Company, to repair a joint bridge with the Detroit & Mackinac over the Saginaw river at Bay City, Mich. (\$65,000); to Thomas-Wilson, Inc., for a yard office at Plymouth, Mich. (\$33,774); and to the Forbes Construction Company, Huntington, W. Va., for relocating Williams creek at Grant, Ky. (\$6,715).

The following projects have been authorized at the indicated probable costs: Replacing portion of Richmond viaduct (14th street to Rivanna Junction), in Richmond, Va. (\$2,216,000); installing a C.T.C. system from Westham, Va., to Bremo, and from Lynchburg to Balcony Falls (\$1,068,000); and constructing a commissary building at Ashland, Ky. (\$47,000). The first two of these projects will be undertaken by the road's own forces.

FINANCIAL

Central of Georgia.—*Bond Issue.*—The I.C.C. has dismissed this road's pending application for authority to nominally issue \$1,067,000 of series A first mortgage 4 per cent bonds (*Railway Age*, May 28, page 72.) Central decided to withdraw the application.

Western Pacific.—*Conditional Sales Agreement.*—The First National Bank of New York submitted the lowest bid for financing part of the cost

Chicago, Rock Island & Pacific-Ft. Worth & Denver.—*Operating Agreement.*—These roads have applied to the I.C.C. for approval of an agreement relating to operation of their joint Texas division, between Ft. Worth, Tex., and Galveston. The agreement covers the pooling or division of traffic, service and earnings. It



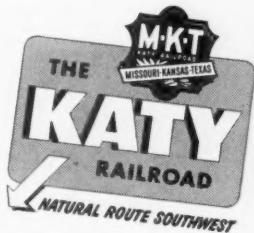
Here's our Hat ...and Here's our **HURRY!**

Katy's bringing a powerful new Diesel fleet Southwest!

More new giant road Diesels to pull longer freights, farther, faster. More Diesel yard switchers to trim your terminal transfer time. Equipment and service improvements all over the system.

Yes, Katy is stepping up the pace, blending smooth, speedy Diesel power with the dependable service Southwest shippers and travelers have relied on for nearly 80 years.

Your local Katy representative will be glad to tell you more about Katy's many new plans . . . and how you may benefit by shipping and traveling Katy, Southwest.



41

Single loading lasts from one to three weeks!



Repeat-O-Pak

STANDARD MANIFOLD COMPANY

Floating Carbon
Paper for
Continuous Forms

333 W. Lake Street • Chicago
Offices in all principal cities

**MCDougall-
Butler**
SINCE 1887

**SPECIALIZED
RAILROAD
FINISHES**

HARDCOTE TRANSPORTATION FINISHES
For Passenger Cars and Signal Equipment

CHEMICAL RESISTANT COATINGS
Alkali Resistant For Tank Cars & Covered Hopper Cars

BUTLER FRONT END PAINT
Beats the Heat! Won't Crack, Blister or Peel.
Send for literature and color card.

McDOUGALL-BUTLER CO., INC.
General Offices, Buffalo 14, New York

HYMAN-MICHAELS COMPANY

Relaying Rails

★★

Dismantling

Used railroad equipment—cars—locomotives

Freight Car Replacement Parts

Complete stocks of guaranteed used freight car parts carried on hand by us at all times. Located conveniently for shipment to any part of the country. Write—Phone—Car or Track Dismantling, or Car Parts.

Main Office

122 SOUTH MICHIGAN AVENUE
CHICAGO, ILLINOIS

Branches

Wire—when interested in used Rails, Equipment, Cars, St. Louis	Los Angeles	Havana, Cuba
New York	San Francisco	Houston
SERVICE	QUALITY	RELIABILITY

LOOKING FOR A JOB?

Use the "POSITION WANTED" column of the Classified Department to your advantage.

Write To:

GET TOGETHER DEPT., RAILWAY AGE

30 Church St.

New York 7, N. Y.

is to be effective as of June 1, 1950, and remain in effect 15 years. It supersedes a similar agreement in effect since June 1, 1931. The Ft. Worth-Galveston line is leased by these two roads from the Burlington-Rock Island. That lease was approved by the I.C.C. earlier this year, and also constituted a renewal of existing arrangement (*Railway Age*, March 5, page 82.)

Long Island.—Reorganization.—Some practical plan of reorganization for this road can and must be developed on either a private or public basis, according to a statement mailed by the Long Island Transit Authority to public officials, civic leaders and businessmen on Long Island. The statement, the first from the authority since its appointment by Governor Thomas E. Dewey last June 30, also was distributed on August 30 aboard Long Island morning commuter trains. Several matters under negotiation must be settled before any definite decision can be reached about the type of reorganization, the statement said. Hope was expressed that the situation can be sufficiently clarified to permit a decision before the end of the year.

Long Island.—Trustee Certificates.—Making the "preliminary reports" which this road's trustee requested on his pending application for authority to issue \$6,000,000 of trustee's certificates, Division 4 of the I.C.C. has found conditionally that the proposed issue is "for lawful objects within his [the trustee's] duly authorized purposes and compatible with the public interest, which are necessary and appropriate for and consistent with the proper performance by him of service to the public as a common carrier, and which will not impair his ability to perform that service." Supplemental reports and orders will be required to authorize actual issuance of the certificates, the proceeds of which will finance the acquisition of safety devices recommended by the commission and other public bodies (*Railway Age* of April 30, page 50).

The trustee requested the present report because of the September 1 deadline for notifying interested banks as to whether or not the money would be borrowed. The condition attached to the commission's finding stipulated that "prior to each actual issue of the certificates the applicant shall file with us a supplement to the applications, setting forth the amount of the certificates then proposed to be issued and a statement of the applicant's cash position at the time."

Southern.—Acquisition.—Two of this road's affiliates—the High Point, Randleman, Asheboro & Southern and the Carolina & Northwestern—have applied to the Interstate Commerce Commission for authority to acquire three miles of line in and near Asheboro, N. C., from the Norfolk South-

ern. The acquisition plan contemplates that High Point will buy the line for \$64,000 and lease it for a fixed annual rental of \$3,200 to C. & N., which is lessee of High Point's present railroad properties. The three-mile segment is part of a line between Asheboro and Star, N. C., which N.S. is seeking authority to abandon in another pending application; and the acquisition plan is contingent upon favorable commission action on this abandonment application.

Western Pacific.—*Conditional Sales Agreement.*—The First National Bank of New York submitted the lowest bid for financing part of the cost of 600 new box cars under a \$2,594,990 conditional sale agreement. The cars are to be delivered during September and October by the Pullman-Standard Car Manufacturing Company at a total cost of \$3,460,610. The bank's bid will provide funds at an interest rate of 3 per cent.

New Securities

Applications have been filed with the I.C.C. by:

CHICAGO, ROCK ISLAND & PACIFIC.—To assume liability for \$5,700,000 of series J equipment trust certificates to finance in part 30 diesel-electric locomotive units and 520 box cars, costing an estimated \$7,649,895.

Equipment and Builder	Estimated Unit Cost
5 1,600-hp. road-switching locomotives (American Locomotive Company) ..	\$146,863
15 1,600-hp. suburban locomotives (American)	175,470
10 1,500-hp. general purpose locomotives (Electro-Motive Division, General Motors Corporation)	148,156
520 50-ton steel sheathed box cars (Pullman-Standard Car Manufacturing Company)	5,400

The certificates, to be dated October 1, would mature in 30 semiannual installments of \$190,000 each, beginning April 1, 1952. They would be sold on the basis of competitive bids, with the interest rate to be set by such bids.

TEXAS & PACIFIC.—To assume liability for \$2,900,000 of series M equipment trust certificates, to finance in part six diesel-electric locomotive units and 450 freight cars. Estimated total cost of the new equipment is \$3,949,601.

Equipment and Builder	Estimated Unit Cost
6 2,250-hp. passenger locomotives (Electro-Motive Division, General Motors Corporation)	\$238,632
200 50-ton box cars (Pressed Steel Car Company)	5,724
250 70-ton open-top hopper cars (American Car & Foundry Co.) ..	5,492

The certificates, to be dated October 1, would mature in 10 annual installments of \$290,000 each, beginning October 1, 1952. They would be sold by competitive bids, with the interest rate to be set by such bids.

Division 4 of the I.C.C. has authorized:

BALTIMORE & OHIO.—To assume liability for \$7,755,000 of series CC equipment trust certificates to finance in part 2,000 new hopper cars at an estimated total cost of \$9,700,000. (*Railway Age*, July 30, page 56). The commission's report approved sale of the certificates at \$9,3856, with interest at 3 per cent—the bid of Salomon Bros. & Hutzler and three associates—which will make the average annual cost of the proceeds approximately 3.1 per cent. The certificates, dated September 1, will mature in 15 annual installments of \$517,000 each, beginning September 1, 1952. The certificates were reoffered to the public at prices yielding from 2.45 to 3.075 per cent, according to maturity.

Dividends Declared

ALABAMA & VICKSBURG.—\$3, semiannual, payable October 1 to holders of record September 7.

ILLINOIS CENTRAL.—75¢, quarterly, payable October 1 to holders of record September 5.

NORTHERN PACIFIC.—(increased) 75¢, payable October 25 to holders of record October 3.

PITTSBURG, FORT WAYNE & CHICAGO.—common, \$1.75, quarterly, payable October 1 to holders of record September 10.

VICKSBURG, SHREVEPORT & PACIFIC.—common, \$2.50, semiannual; 5% preferred, \$2.50, semiannual, both payable October 1 to holders of record September 7.

Security Price Averages

	Aug. 28	Prev. Week	Last year
Average price of 20 representative railway stocks	52.50	53.16	46.35
Average price of 20 representative railway bonds	91.93	92.78	95.84

RAILWAY OFFICERS

EXECUTIVE

Stephen T. Kelsey, Jr., has been appointed executive assistant of the CANTON, at Baltimore, Md.

Ephraim Rigg, general freight traffic manager of the CHICAGO, ROCK ISLAND & PACIFIC, at Chicago, has been elected vice-president—freight traffic, succeeding the late **James W. Hill**, whose death was announced in the August 20 *Railway Age*. A native of Wilmington, N. C., Mr. Rigg started his railroad career with the Rock Island at its Kansas City commercial office in December 1906 as an office boy. With the exception of brief periods in his early career when he



Ephraim Rigg

served with the Muskogee, Oklahoma & Gulf, and in 1940 when he acted as a member of the standing rate committee of the Western Trunk Line Committee, he has spent his entire career on the Rock Island. Advancing through a number of positions, in 1935 he became general freight agent, in 1940, assistant general freight traffic manager and in 1944, assistant freight traffic officer. He was promoted to general freight traffic manager in January 1948.

Walter W. Cunningham, executive general agent of the ILLINOIS CENTRAL at Baton Rouge, La., will re- (Continued on page 95)



One of the Greatest "Proving Grounds" is 400,000 miles long . . . and 4' 8½" wide!

When it comes to "service tests," the roughest, ruggedest of all are applied to new equipment for American railroads. Every mile of track is part of a mammoth proving ground. Tests are measured in years, and graded in hundreds of thousands of miles of failure-free operation. There's never been a time, during the past 83 years, when some item of Westinghouse Air Brake equipment wasn't being tested on this proving ground.

A lot of this new equipment you may never see. Such things as the Westinghouse Pneumatic Slack Adjuster, that automatically compensates for shoe wear of freight-car brake rigging, eliminating costly, time-consuming manual adjustment . . . the new D-24-B Feed Valve, that

maintains brake pipe pressures to hair-line accuracy . . . the Westinghouse DECELOSTAT,® that eases and immediately restores brake pressure if wheel slip threatens, producing maximum deceleration for any rail condition . . . the Westinghouse speed governor control and load compensating brake equipment, that proportion braking pressures to speed and to car weight, respectively. Every item manufactured by Westinghouse Air Brake Company is designed to help the railroads in their never-ending program of constantly improving your transportation service. And every item is continuing evidence of how the Westinghouse research and development program has contributed to railroad progress.



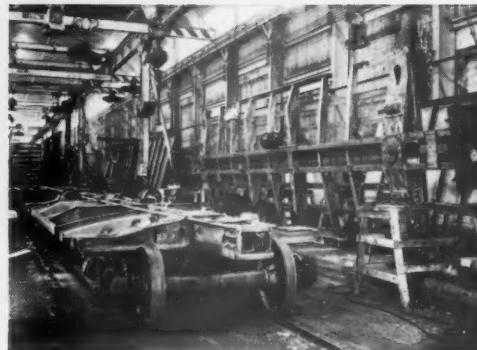
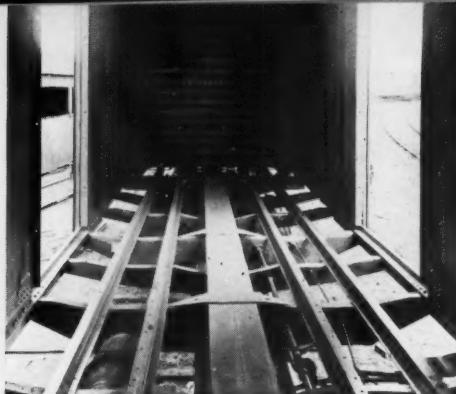
Westinghouse Air Brake Co.
AIR BRAKE DIVISION
WILMERDING, PA.



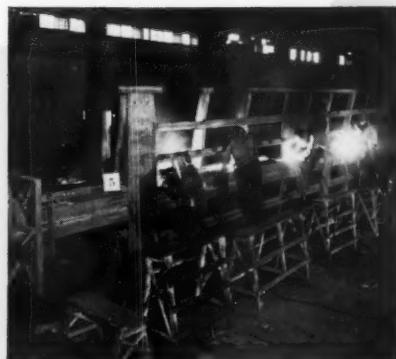
To direct popular attention to the remarkable achievements of American Railroads, this advertisement has been run in national media by Westinghouse Air Brake Co., Air Brake Division.



Bert Iwane



THE BUTCHER... THE BAKER... AND THE BOX CAR MAKER



Busy little "B's", to be sure, for these are busy times. Most important of these...as we naturally would see it...is the box car maker. For it is his craftsmanship that builds the new rolling stock that keeps the Railroads rolling. It is the Railroads that keep the butcher busy with tons and tons of meat...and the baker happy with mountains of flour, sugar and all it takes to bake a cake.

to build...or to buy?

We depend on the butcher for the best cuts of meat. We buy the baker's cake...he has the skill and experience to turn out the best for the lowest cost. The box car maker's art far exceeds both in complexity of skills and facilities needed to turn out a finished product. Why try to duplicate such costly facilities? America's leading Railroads for years have proved the efficacy of buying...rather than building...from an experienced car builder such as Q.C.F. For Q.C.F. facilities, personnel and experience are second to none. Call in an Q.C.F. Representative and get the Q.C.facts on new freight cars and how Q.C.F. Standardized Design Cars can improve your revenue picture.
American Car and Foundry Company, New York
Chicago • St. Louis • Cleveland
Philadelphia • Washington • San Francisco

a.c.f. CAR BUILDERS TO AMERICA'S RAILROADS

Oversize pads bonded through steel plates, working against steel plates provide extra absorption and greater capacity.

Waugh
Today

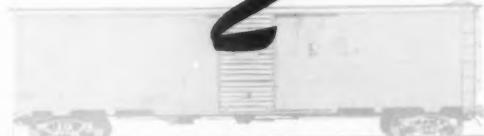
**the need is growing
for this
extra protection!**

1



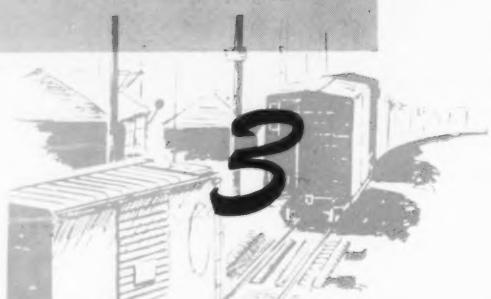
Loads are greater and schedules tighter.

2



Welded steel cars are more rigid.

3



Flat yards, more and more, give place to hump yards where impacts generally exceed the capacity of conventional draft rigging.

- Hump yard classification is the most vital reason why cars today need better cushioning. In hump yards, impacts at less than 4 miles per hour are the exception. For impacts of more than four miles an hour, cars require modern cushioning . . . Waughmat Twin Cushions. Twin Cushions protect cars and lading against the majority of excessive impacts of hump yard coupling.



FOR CAR AND LADING PROTECTION
SPECIFY . . .

WAUGHMAT *TwinCushions* TRADE MARK REGISTERED

WAUGH EQUIPMENT COMPANY, New York • Chicago • St. Louis • Canadian Waugh Equipment Company, Montreal

(Continued from page 90)
tire on September 30, after more than 47 years of service with that road.

Harry B. Light, general freight traffic manager of the READING, in charge of the freight traffic department, has been elected vice-president in charge of the freight traffic with headquarters as before at Philadelphia.

G. O. Henrieson, assistant to comptroller of the ILLINOIS CENTRAL, has been appointed assistant to vice-president and comptroller, with headquarters remaining at Chicago.

FINANCIAL, LEGAL & ACCOUNTING

W. R. Rouse, assistant Western general counsel of the UNION PACIFIC at Omaha, has been promoted to Western general counsel. He succeeds the late **T. W. Bockes**, whose death is reported elsewhere in this issue. Mr. Rouse is a native of Galena, Ill., and a graduate of Creighton University. He entered U.P. service in 1911 in the engineering department, joined

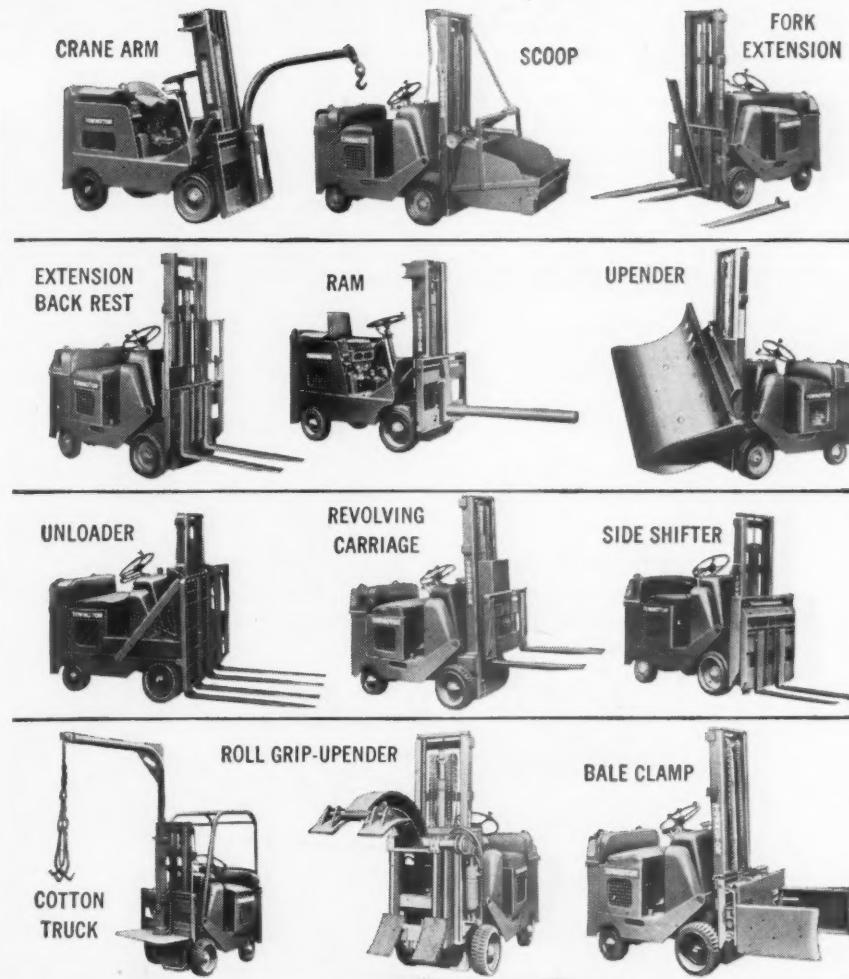


W. R. Rouse

the law department in 1918, advanced to assistant to vice-president in March 1942, and four months later became assistant Western general counsel. Appointed assistant vice-president in June 1946, handling specialized legal assignments, in July 1949 he resumed the title of assistant Western general counsel.

K. H. Lyrla, general auditor of the ILLINOIS CENTRAL, has been appointed assistant comptroller. A photo and biographical sketch of Mr. Lyrla appeared in the September 9, 1950, *Railway Age* in connection with his appointment as general auditor.

Everett W. Smith, assistant to vice-president—finance, of the BOSTON & MAINE, has been elected treasurer, succeeding **Edward J. Gallagher**, retired. Mr. Gallagher was born at St. John, N. B., July 3, 1887. He was graduated from Harvard in 1912 and in the same year entered the service of

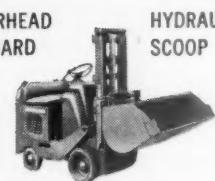


Regardless of Your Material Handling Problem

**WE'LL BET ONE OF THESE
TOWMOTOR ACCESSORIES
CAN HELP SOLVE IT!***



OVERHEAD GUARD



HYDRAULIC SCOOP

*IF NOT—
TOWMOTOR
SPECIAL ENGINEERING
WILL DEVELOP
THE ANSWER!

HANDLES ANY TYPE MATERIAL

TOWMOTOR
THE ONE-MAN-GANG®

FORK LIFT TRUCKS and TRACTORS
RECEIVING • PROCESSING • STORAGE • DISTRIBUTION

Send to Towmotor Corporation, Div. 21,
1226 E. 152nd St.,
Cleveland 10, Ohio, for
free folders describing
the 14 Standard Towmotor
Accessories, and
Towmotor's Special
Engineering devices.



HOW MANY PEOPLE HAVE YOU TALKED TO ABOUT AMERICANISM TODAY?

the B. & M. as secretary to the vice-president in charge of finance and accounting. In 1925 he was appointed assistant to vice-president and in 1928 was also made assistant treasurer. He was elected treasurer on September 12, 1933. Mr. Gallagher was also treasurer of the B. & M. Transportation Co. and the Mystic Terminal Co.

OPERATING

E. J. Jones, trainmaster of the NEW YORK CENTRAL, has been appointed assistant superintendent, Hudson and Mohawk divisions, with headquarters as before at Albany, N. Y.

A. F. Grimes has been appointed trainmaster of the Hudson and Mohawk divisions at Albany.

W. R. Winkler, assistant division superintendent of the LOUISVILLE & NASHVILLE at Corbin, Ky., has been transferred to the Louisville division, with headquarters at Paris, Tenn., succeeding **K. W. Graham**, assigned to other duties.

J. R. Conerly, superintendent of the GULF, MOBILE & OHIO's Western division at Slater, Mo., has been transferred in that capacity to the Eastern division at Bloomington, Ill. He suc-

ceeds **B. V. Bodie**, newly-appointed chief engineer (*Railway Age*, August 27). Replacing Mr. Conerly at Slater is **J. C. Miller**, superintendent at Murphysboro, Ill. The jurisdiction of Superintendent **S. G. Thomason**, heretofore headquartered at St. Louis, has been extended to Tamms, Ill., with new headquarters at Murphysboro.

G. L. Boyd, diesel road foreman of engines on the Capreol division, CANADIAN NATIONAL, has been appointed trainmaster at Gravenhurst, Ont., succeeding **G. H. Sanderson**, promoted (*Railway Age*, July 23).

TRAFFIC

C. A. Pollock, general freight agent of the UNION PACIFIC at Chicago, is retiring, and, effective September 1, was succeeded by **M. R. Bryan**, general agent, freight department, at that point. **C. E. Shanahan**, freight traffic agent at Chicago, replaces Mr. Bryan. Mr. Pollock, who is a native of Chicago, where he was born March 15, 1882, began his railroad career as a messenger with the Western Passenger Association at Chicago in 1898. Joining the U.P. in 1909 as a freight department cashier and reconsigning clerk, in 1935 he became general agent; in 1937, freight traffic general agent, and in 1944, general freight agent.

Mr. Bryan was born on December 31, 1888, at Neenah, Wis., and served with the Chicago, Milwaukee, St. Paul & Pacific, the Chicago & North Western and the Minneapolis, St. Paul & Sault Ste. Marie before coming to the U.P. in 1920 as traveling freight agent at Milwaukee. Appointed general agent in 1939, he moved to Chicago in 1944 as general agent, freight department.

Everett T. Willson has been appointed assistant general freight agent of the CHICAGO, ROCK ISLAND & PACIFIC at Omaha. He previously represented the Rock Island at Peoria, Ill., and Colorado Springs, Colo.

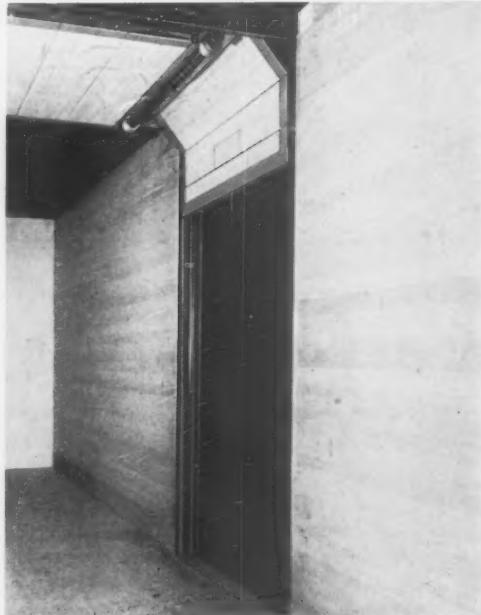
William E. Allison, manager for 21 years of the mail and baggage traffic department of the CANADIAN PACIFIC, at Montreal, has retired. He has been succeeded by **J. Earle Tweedy**, general mail and baggage agent at Montreal.

W. R. St. John, general agent, freight department, of the DELAWARE & HUDSON, at Buffalo, N. Y., has been appointed assistant general freight agent at Albany, N. Y. **Joseph F. Hartman**, general agent, freight department, at Cleveland, has been transferred to Buffalo, succeeding Mr. St. John, and has been succeeded in turn by **Leonard Unger**.

J. Warren Lawson, freight traffic manager of the READING, has been appointed general freight traffic manager, with headquarters as before at

Richards-Wilcox

UTILITY All Purpose DOOR

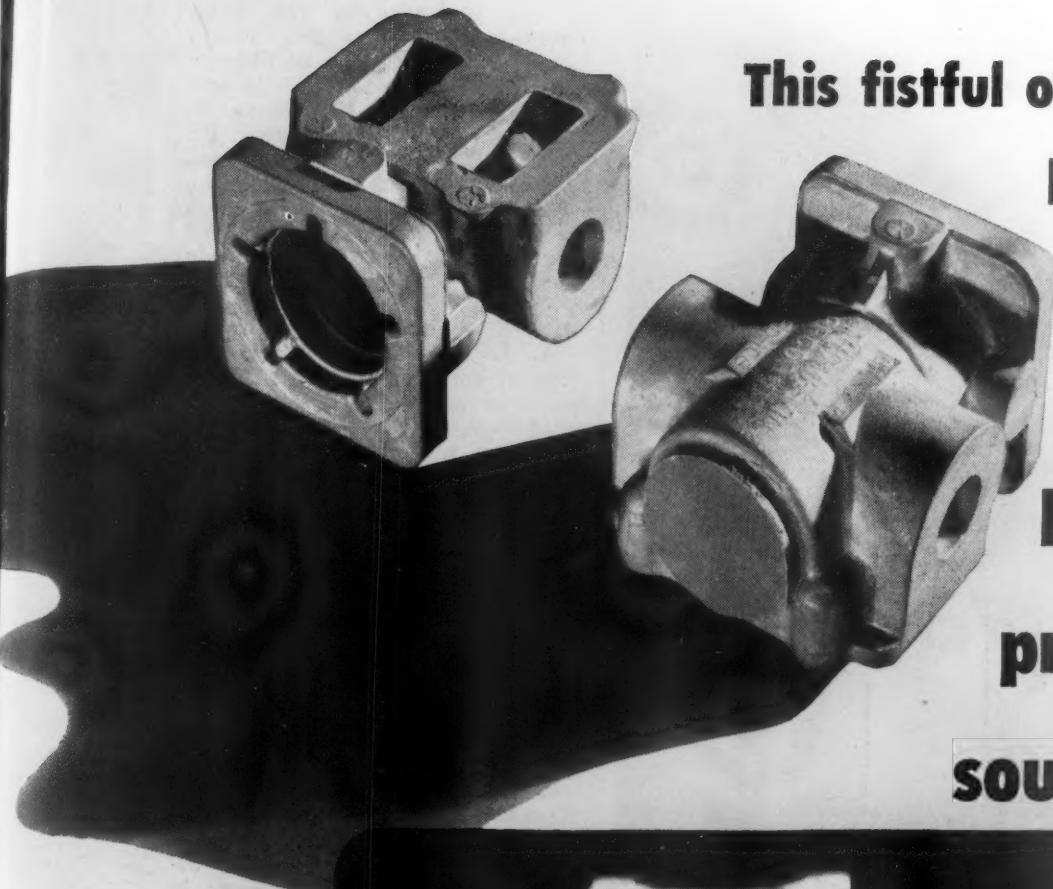


PERMANENT SIDE DOOR PROTECTION . . . FOR ALL KINDS OF FREIGHT — WILL EFFECT SAVINGS IN:

- Purchasing grain doors and lumber
- Installing and reclaiming grain doors
- Reducing damage and pilferage claims
- Eliminating grain leakage and side door damage
- Eliminating present door post repair expense
- Various other expenses to railroads and shippers in furnishing side door protection

Write for illustrated Folder No. RAF-166

RICHARDS-WILCOX MFG. CO., AURORA, ILL.



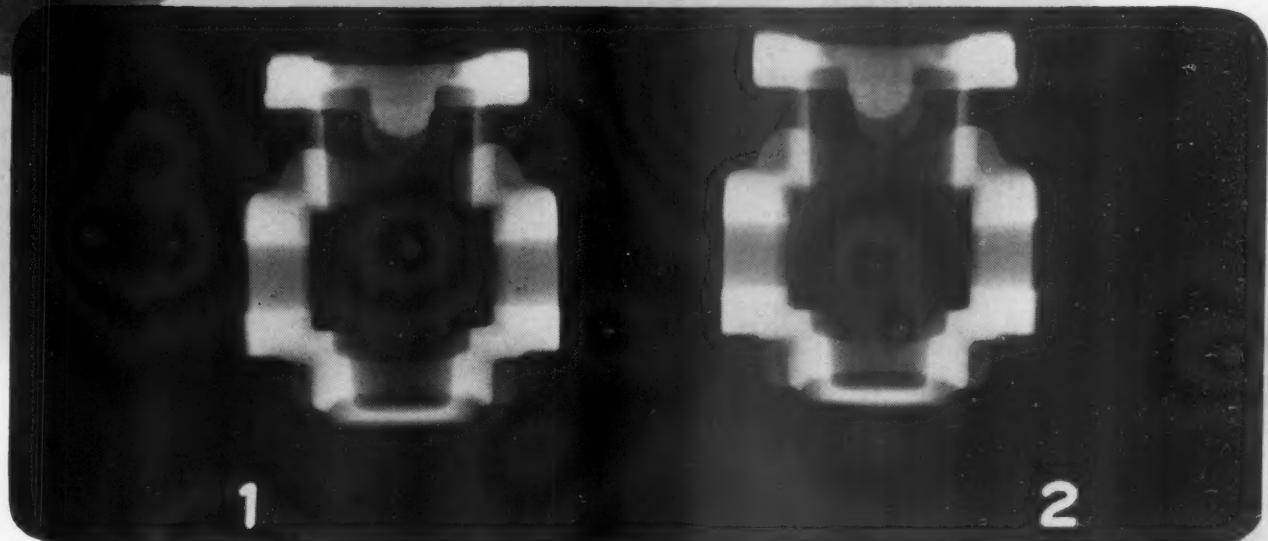
This fistful of pump

**has a plane-size
job...**

Radiography

proves it

sound



PERFORMANCE requirements for airplane parts run high. They must be strong and rugged. Even with light alloys, demand is for less weight.

Here is where radiography plays an important part. For the designer, knowing all castings used will prove sound, can plan to use the minimum of metal and still maintain needed safety margins.

Foundries making large or small castings—of light alloys or heavy metals—find it valuable to radiograph their castings. Then they know only

highest quality work is released. Through pilot castings prior to large production runs, radiography frequently indicates ways in which methods can be improved to save time and increase yield.

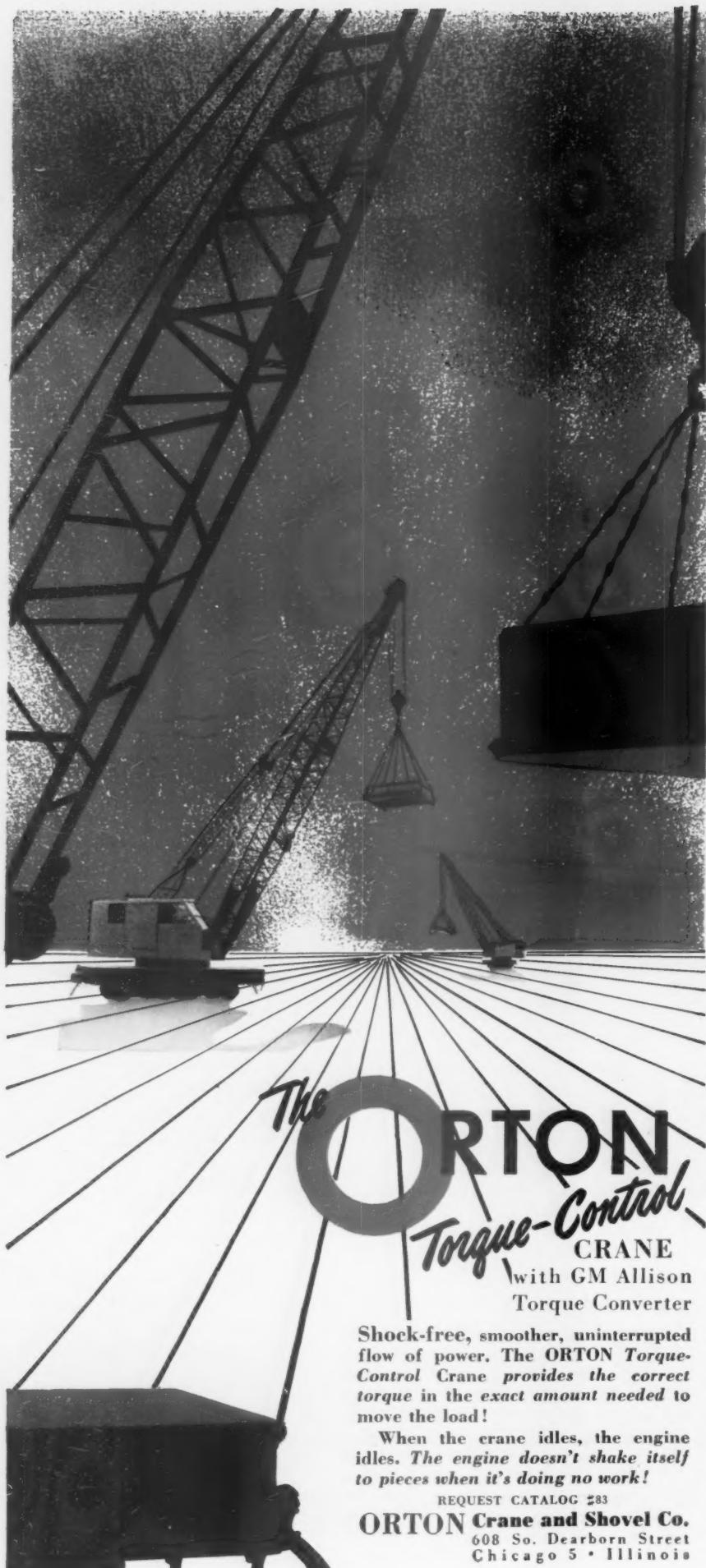
Your x-ray dealer will gladly discuss how radiography can improve your plant operations. And if you wish, we will send you a free copy of "Radiography as a Foundry Tool."

EASTMAN KODAK COMPANY
X-ray Division, Rochester 4, N. Y.

Radiography...

another important function of photography

Kodak
TRADE-MARK



Shock-free, smoother, uninterrupted flow of power. The ORTON *Torque-Control* Crane provides the correct torque in the exact amount needed to move the load!

When the crane idles, the engine idles. The engine doesn't shake itself to pieces when it's doing no work!

REQUEST CATALOG #83

ORTON Crane and Shovel Co.
608 So. Dearborn Street
Chicago 5 • Illinois

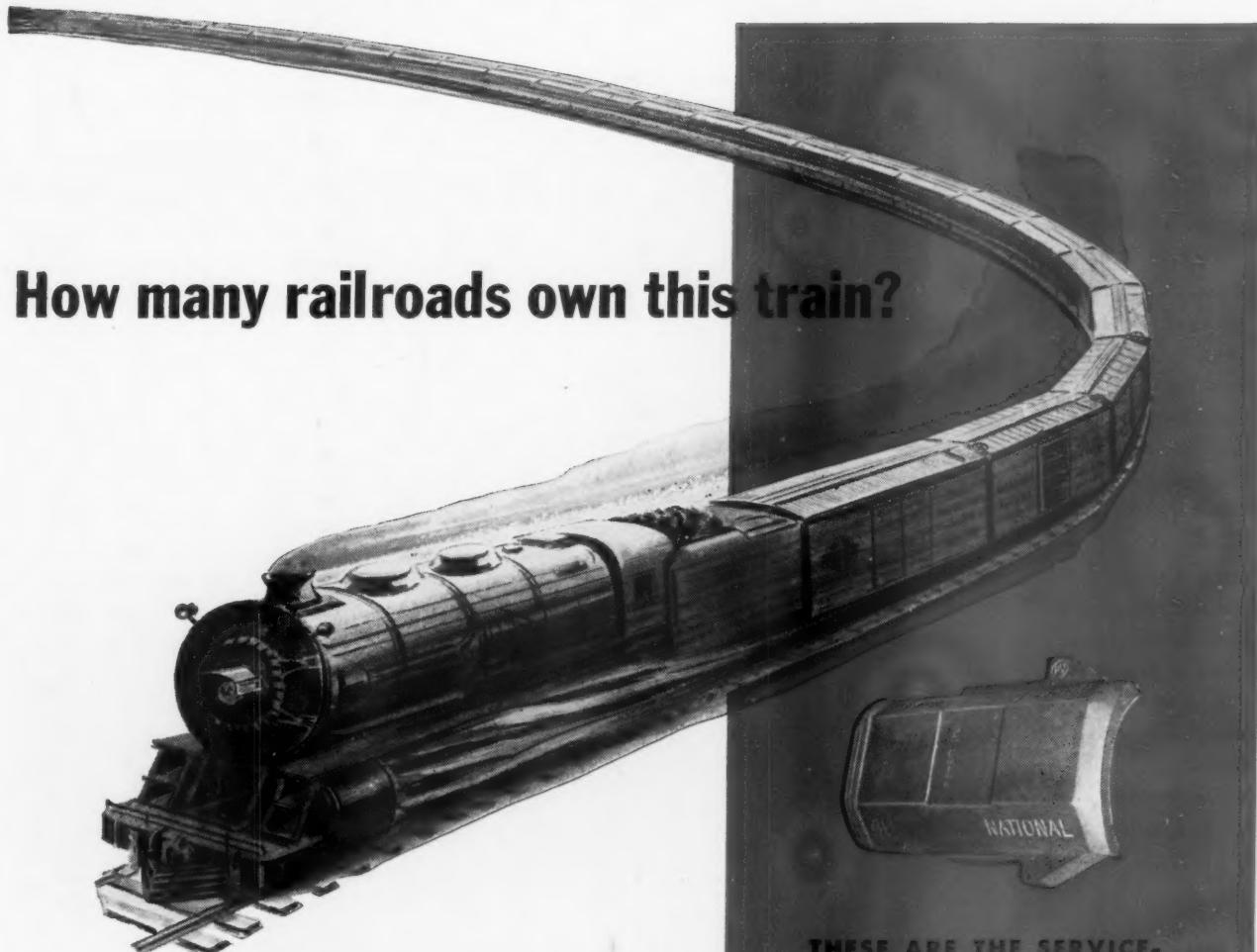
Philadelphia, succeeding **Harry B. Light**, whose election to vice-president in charge of freight traffic is announced elsewhere in this issue. **Thomas H. Ramsey, Jr.**, western freight traffic manager at Chicago, succeeds Mr. Lawson, and is in turn succeeded by **Victor L. Pernter**, division freight agent at Harrisburg, Pa. **Harold E. Pauli**, New England freight agent at Boston, has been appointed division freight agent at Harrisburg, to succeed Mr. Pernter, and **Paul R. Fagan**, traveling freight agent at Harrisburg, succeeds Mr. Pauli.

A. J. Van Ornum, commercial agent of the CLINCHFIELD at Chicago, has been appointed district freight agent there, succeeding the late **R. L. Helstrom**, whose death is announced elsewhere in this issue.

Following the election of **Ephraim Rigg** as vice-president—freight traffic of the CHICAGO, ROCK ISLAND & PACIFIC, as noted in the Executive column, changes involving 10 other traffic officers have been announced: **John M. Spann**, freight traffic manager in charge of sales and service, advanced to general freight traffic manager, with headquarters as before at Chicago; **William B. Futral**, assistant freight traffic manager at Kansas City, Mo., promoted to succeed Mr. Spann; **Elden A. Tharp**, assistant freight traffic manager, advanced to freight traffic manager in charge of rates and divisions; **John E. Capps**, assistant freight traffic manager, and **Leonard Hill**, general freight agent, appointed assistant freight traffic managers, rates and divisions, with headquarters continuing at Chicago; **Franklin D. Staley**, district freight traffic manager at Seattle, made assistant freight traffic manager, sales and service, at Kansas City; **James N. Hunt**, district freight traffic manager at Los Angeles, transferred to San Francisco as Western freight traffic manager, sales and service, with supervision over the entire Pacific coast area; **Claire N. Packard, Jr.**, district freight traffic manager at San Francisco, appointed Mr. Hunt's successor; **F. L. Retke**, assistant general freight agent at Chicago, promoted to general freight agent, rates and divisions, there; and **Ernest J. Heater**, traffic rate clerk, made assistant general freight agent, rates and divisions, at Chicago.

Mr. Staley is a native of Garden City, Mo. He joined the Rock Island at Toulon, Ill., in 1913 as a station helper, and subsequently served as telegrapher, agent, general dairy and poultry agent and assistant general freight agent before becoming district freight traffic manager at Seattle.

Starting with the Rock Island in 1913 as a clerk at Des Moines, Iowa, his home town, Mr. Hunt later acted as chief clerk, traveling freight agent, (Continued on page 102)



How many railroads own this train?

As high as 83% of operated cars are foreign — another reason why railroads standardize on SOLID JOURNAL BEARINGS.

A recent study of 6 roads—picked at random—proved that out of every 100 freight cars operated, *from 55% to 83% were foreign!* Think of the resulting interchange problem. Service and maintenance require a tremendous degree of standardization when 8 out of 10 cars belong to other roads. *Free interchange is another basic reason why railroads have so completely standardized on the Solid Journal Bearing . . . for simple, fast, economical maintenance and inspection.* Performance? The performance records of Solid Journal Bearings speak for themselves—with as high as *6½ Million bearing miles per car set-out!* These performance records are unequalled—and they're constantly being improved. Year after year shows a steady increase in speeds, loading and daily car mileage. That's why railroads will continue to find the answer to dependability, ease of maintenance, operating economy and free interchange in the Solid Journal Bearing.



National Bearing Division . . . Serving America's Railroads since 1874 with a complete line of Journal Bearings, Engine Bearings and Bronze Parts.

AMERICAN

Brake Shoe

COMPANY

NATIONAL BEARING DIVISION

4937 Manchester Avenue • St. Louis 10, Mo.

PLANTS IN: ST. LOUIS, MO. • MEADVILLE, PA. • NILES, OHIO • PORTSMOUTH, VA. • ST. PAUL, MINN. • CHICAGO, ILL.

Freight Operating Statistics of Large Steam Railways — Selected

Region, Road and Year	Miles of road operated	Locomotive-Miles			Car-Miles		Ton-Miles (thousands)			Road locos. on line			
		Principal and helper	Train-miles	Light	Loaded (thousands)	Per cent loaded	Gross excl. locos.	Net rev. and non-rev.	Serviceable	Unstored	Stored	B.O.	
New Eng. Region	Boston & Maine.....	1951 1,691	276,244	283,675	12,371	11,056	72.1	679,192	291,983	86	4	12	11.8
	1950 1,700	272,654	281,487	12,688	10,419	68.8	653,585	273,001	91	5	12	11.1	
	N. Y., N. H. & Hfd.....	1951 1,766	318,730	318,963	19,730	12,052	68.0	809,478	373,674	97	..	9	8.5
	1950 1,771	300,570	301,400	34,406	12,207	68.4	755,844	337,579	111	..	16	12.6	
	Delaware & Hudson.....	1951 793	259,715	303,189	23,353	11,583	75.2	797,916	441,665	139	15	13	7.8
	1950 794	249,903	297,891	30,088	10,546	68.2	747,639	393,118	132	36	23	12.0	
	Del., Lack. & Western.....	1951 964	294,755	318,852	31,902	13,485	70.6	890,342	416,034	84	7	16	15.0
	1950 965	272,736	293,691	31,889	12,659	70.2	824,408	377,276	78	6	36	30.0	
	Erie.....	1951 2,245	633,236	643,058	33,640	34,923	68.5	2,190,807	917,659	179	31	26	11.0
	1950 2,231	700,151	731,789	53,538	37,856	69.0	2,401,807	1,027,580	182	1	42	18.7	
Great Lakes Region	Grand Trunk Western.....	1951 952	271,201	274,620	2,615	9,118	65.8	606,202	260,854	52	..	16	23.5
	1950 971	301,869	311,326	2,645	10,978	64.5	737,016	311,299	58	..	12	17.1	
	Lehigh Valley.....	1951 1,211	252,912	264,572	19,572	12,885	70.6	865,094	418,729	39	5	7	13.7
	1950 1,238	256,716	272,929	24,760	13,323	70.6	875,313	414,312	52	4	31	35.6	
	New York Central.....	1951 10,675	3,060,467	3,259,473	176,294	114,432	63.3	8,133,898	3,717,198	980	48	391	27.6
	1950 10,691	2,561,004	2,705,546	169,096	91,743	62.3	6,426,570	2,864,829	997	49	395	27.4	
	New York, Chic. & St. L.....	1951 2,161	816,650	845,371	12,810	32,326	68.3	2,234,606	1,035,824	203	12	34	13.7
	1950 2,162	837,523	857,253	13,916	33,997	66.1	2,306,112	1,016,759	192	..	51	21.0	
	Pitts. & Lake Erie.....	1951 221	95,784	96,960	17	4,007	70.1	331,051	204,979	30	..	15	33.3
	1950 221	82,017	84,739	7	3,287	68.0	275,519	169,093	30	1	21	40.4	
Central Eastern Region	Wabash.....	1951 2,381	545,693	550,467	8,634	23,171	70.4	1,479,505	632,344	123	11	77	36.5
	1950 2,381	633,584	638,708	10,125	25,562	68.6	1,605,610	641,309	142	1	62	30.2	
	Baltimore & Ohio.....	1951 6,083	1,794,494	2,066,636	209,445	71,104	64.4	5,411,069	2,721,844	620	108	176	19.5
	1950 6,086	2,023,782	2,459,854	272,538	75,215	64.9	5,678,828	2,794,036	700	54	253	25.1	
	Central of New Jersey.....	1951 410	76,229	76,521	4,014	2,936	66.3	218,357	114,848	41	..	5	10.9
	1950 410	73,196	76,489	5,208	2,926	66.0	221,448	113,406	34	1	12	25.5	
	Central of Pennsylvania.....	1951 210	72,753	78,631	10,819	2,780	69.5	202,192	109,504	34	..	6	15.0
	1950 212	73,054	81,514	14,124	2,960	70.7	216,943	116,734	35	1	16	30.8	
	Chicago & Eastern Ill.....	1951 886	131,356	131,356	3,862	5,117	68.6	327,573	152,474	25	..	2	7.4
	1950 886	135,994	135,994	2,921	5,199	69.2	330,907	155,651	26	1	1	3.6	
Pocahontas Region	Elgin, Joliet & Eastern.....	1951 238	99,120	100,095	556	3,932	65.1	311,033	169,450	43
	1950 238	103,072	104,059	72	3,774	65.3	300,581	159,851	38	2	5	5.0	
	Pennsylvania System.....	1951 10,045	3,339,869	3,622,620	379,952	143,380	67.1	10,218,500	5,084,349	1,232	74	293	18.3
	1950 10,042	2,661,754	2,898,515	326,353	109,022	65.9	7,704,614	3,759,332	1,254	..	400	24.2	
	Reading.....	1951 1,311	371,882	386,046	31,162	14,158	67.0	1,079,288	584,542	171	30	29	12.6
	1950 1,315	375,985	395,236	34,097	14,910	68.2	1,128,344	620,290	177	20	43	17.9	
	Western Maryland.....	1951 837	172,389	199,871	20,054	6,210	65.6	491,150	272,709	119	7	22	14.9
	1950 837	176,933	207,054	23,240	6,652	64.7	533,295	296,973	146	33	15	7.7	
Southern Region	Chesapeake & Ohio.....	1951 5,042	1,480,452	1,551,182	64,314	69,349	58.7	5,910,811	3,327,337	494	15	249	32.8
	1950 5,045	1,518,684	1,609,191	68,168	65,065	57.7	5,460,731	2,993,269	521	34	157	22.1	
	Norfolk & Western.....	1951 2,113	776,013	820,161	57,348	36,896	54.6	2,383,760	1,795,172	245	20	21	7.3
	1950 2,107	699,300	734,592	45,170	31,906	59.1	2,756,132	1,484,211	244	31	44	13.8	
	Atlantic Coast Line.....	1951 5,434	988,166	990,463	17,065	30,038	62.2	2,055,289	909,999	364	20	108	22.0
	1950 5,480	872,236	875,824	12,436	25,016	63.2	1,699,054	759,014	315	19	105	23.9	
	Central of Georgia.....	1951 1,765	293,993	296,440	4,314	8,185	71.9	537,080	255,445	123	3	5	3.8
	1950 1,783	279,087	283,617	4,613	7,597	74.0	473,634	222,966	98	2	10	9.1	
	Gulf, Mobile & Ohio.....	1951 2,851	335,042	335,042	243	17,182	72.5	1,111,117	532,933	80	..	3	3.6
	1950 2,851	329,592	329,592	370	14,954	71.4	953,205	437,675	62	5	3	4.3	
Northwestern Region	Illinois Central.....	1951 6,539	1,549,894	1,556,551	53,598	54,624	64.1	3,894,905	1,795,146	578	14	68	10.3
	1950 6,543	1,495,758	1,500,933	54,307	52,040	64.2	3,688,173	1,693,547	558	1	95	14.5	
	Louisville & Nashville.....	1951 4,769	1,145,825	1,230,014	33,813	37,356	63.9	2,748,519	1,350,772	334	13	83	19.3
	1950 4,770	1,307,628	1,417,316	38,042	38,705	63.2	2,858,909	1,397,523	345	24	99	21.2	
	Nash., Chatt. & St. Louis.....	1951 1,049	213,057	217,325	3,855	6,717	72.7	428,143	202,166	74	..	4	5.1
	1950 1,049	227,445	231,028	4,669	6,636	75.2	407,275	191,332	60	..	2	3.2	
	Seaboard Air Line.....	1951 4,136	823,225	845,057	6,939	28,670	63.8	2,002,349	868,947	238	37	51	15.6
	1950 4,136	779,863	804,958	6,431	24,946	64.5	1,733,017	751,296	287	31	29	8.4	
	Southern.....	1951 6,302	1,274,752	1,282,806	14,006	43,341	70.1	2,753,233	1,257,968	382	17	184	31.6
	1950 6,320	1,077,244	1,086,607	12,127	34,446	68.6	2,237,565	1,022,891	389	45	147	25.3	
Central Western Region	Chicago & North Western.....	1951 7,910	924,737	938,365	23,825	34,506	68.3	2,405,337	1,104,192	310	18	147	30.9
	1950 7,998	904,963	916,799	20,832	32,209	65.3	2,273,136	934,061	300	26	130	28.5	
	Chicago Great Western.....	1951 1,441	154,072	154,072	10,147	8,891	71.0	584,138	268,664	30	..	2	6.3
	1950 1,441	154,625	154,743	3,961	8,499	68.3	553,113	242,081	33	..	1	2.9	
	Chic., Milw., St. P. & Pac.....	1951 10,664	1,229,024	1,272,730	43,969	47,214	66.2	3,235,535	1,491,808	440	71	58	10.2
	1950 10,663	1,227,307	1,271,471	44,242	45,714	65.8	3,067,211	1,371,137	414	57	96	16.9	
	Chic., St. P., Minn. & Omaha.....	1951 1,606	207,785	213,636	9,119	5,585	6						

Items for the Month of May 1951 Compared with May 1950

Region, Road and Year		Freight cars on line			G.t.m.per	G.t.m.per	Net	Net	Car-	Net	Train-	Miles
		Home	Foreign	Total	Per	train-hr.	train-mi.	ton-mi.	per	car-	daily	per
Region	Year	B.O.	Cent		and	tenders	train-	per	car-	car-	ton-mi.	loco.
New Eng. Region	Boston & Maine.....	1,329	9,571	10,900	1.5	39,453	2,462	1,058	26.4	895	47.0	5,570
	1950	1,667	9,563	11,230	3.9	38,212	2,402	1,003	26.2	832	46.2	5,180
Great Lakes Region	N. Y., N. H. & Htfd.....	1,404	17,773	19,177	1.6	38,508	2,541	1,173	31.0	645	30.6	6,826
	1950	1,741	18,704	20,445	1.6	36,486	2,516	1,124	27.7	539	28.5	6,149
Delaware & Hudson.....	1951	1,845	6,645	8,490	5.2	58,434	3,087	1,708	38.1	1,652	57.6	17,966
	1950	3,000	6,566	9,566	5.9	53,864	3,002	1,579	37.3	1,351	53.2	15,971
Del., Lack. & Western.....	1951	4,763	10,945	15,708	7.4	47,001	3,074	1,436	30.9	847	38.9	13,922
	1950	6,208	11,453	17,661	11.1	46,892	3,082	1,410	29.8	703	33.6	12,612
Erie.....	1951	6,276	21,938	28,214	3.9	59,606	3,484	1,459	26.3	1,059	58.8	13,186
	1950	9,228	22,079	31,307	7.2	59,110	3,460	1,480	27.1	1,083	57.8	14,858
Grand Trunk Western.....	1951	3,822	9,396	13,218	5.8	46,226	2,253	970	28.6	636	33.8	8,839
	1950	4,519	12,232	16,751	6.7	49,371	2,467	1,042	28.4	652	35.6	10,342
Lehigh Valley.....	1951	3,141	12,161	15,302	6.4	66,316	3,478	1,683	32.5	881	38.5	11,154
	1950	4,824	10,584	15,408	8.6	67,172	3,468	1,641	31.1	863	39.3	10,796
New York Central.....	1951	54,542	127,525	182,067	4.7	45,205	2,693	1,231	32.5	672	32.7	11,233
	1950	68,413	99,255	167,668	8.7	42,596	2,556	1,139	31.2	546	28.1	8,644
New York, Chic. & St. L.....	1951	5,335	20,539	25,874	3.3	50,411	2,791	1,294	32.0	1,328	60.7	15,462
	1950	5,623	20,862	26,485	4.2	49,969	2,802	1,235	29.9	1,238	62.6	15,171
Pitts. & Lake Erie.....	1951	3,551	12,617	16,168	9.6	50,790	3,469	2,148	51.2	447	12.5	29,920
	1950	4,526	10,158	14,684	18.0	46,937	3,365	2,065	51.4	356	10.2	24,682
Wabash.....	1951	6,279	12,661	18,940	3.3	58,052	2,734	1,169	27.3	1,060	55.2	8,567
	1950	6,615	12,764	19,379	2.8	54,275	2,556	1,021	25.1	1,068	62.1	8,689
Baltimore & Ohio.....	1951	45,379	58,515	103,894	5.3	42,299	3,055	1,537	38.3	846	34.3	14,434
	1950	35,218	54,121	89,339	11.6	37,099	2,865	1,410	37.1	1,054	43.8	14,809
Central of New Jersey.....	1951	330	9,185	9,515	2.6	37,962	2,997	1,576	39.1	399	15.0	9,036
	1950	718	10,112	10,830	6.3	38,987	3,123	1,600	38.8	354	13.8	8,923
Central of Pennsylvania.....	1951	1,410	3,040	4,450	19.5	43,642	2,999	1,624	39.4	786	28.7	16,821
	1950	913	3,375	4,288	16.4	43,467	3,135	1,687	39.4	852	30.6	17,762
Chicago & Eastern Ill.....	1951	1,599	3,010	4,609	9.2	42,708	2,509	1,168	29.8	1,022	50.0	5,551
	1950	1,937	4,190	6,127	7.7	43,346	2,440	1,148	29.9	830	40.0	5,667
Elgin, Joliet & Eastern.....	1951	5,865	11,617	20,482	3.1	20,364	3,241	1,766	43.1	251	9.0	22,967
	1950	6,992	12,996	19,988	1.8	22,586	3,005	1,598	42.4	256	9.2	21,666
Pennsylvania System.....	1951	92,459	118,339	210,789	9.3	47,009	3,162	1,573	35.5	787	33.1	16,328
	1950	108,441	107,387	215,828	16.1	44,241	2,996	1,462	34.5	558	24.5	12,076
Reading.....	1951	10,447	19,794	30,241	4.0	37,461	2,904	1,572	41.3	597	21.6	14,383
	1950	10,634	20,938	31,572	9.1	37,227	3,002	1,650	41.6	615	22.7	15,216
Western Maryland.....	1951	5,233	3,173	8,406	2.2	41,946	2,901	1,611	43.9	1,063	36.9	10,510
	1950	5,026	2,833	7,859	3.1	41,686	3,069	1,709	41.6	1,230	42.6	11,445
Pocahontas Region	Chesapeake & Ohio.....	52,712	25,968	78,680	4.6	67,054	4,036	2,272	48.0	1,384	49.1	21,288
	1950	49,447	29,939	79,386	6.6	60,076	3,641	1,996	46.0	1,212	45.6	19,139
Southern Region	Norfolk & Western.....	31,017	7,783	38,800	2.7	70,983	4,295	2,348	48.7	1,507	52.8	27,406
	1950	27,832	6,993	34,825	4.1	64,861	3,993	2,150	46.5	1,350	49.1	22,723
Southern Region	Atlantic Coast Line.....	11,141	19,271	30,412	2.1	33,488	2,096	928	30.3	945	50.1	5,402
	1950	12,253	16,172	28,425	4.6	31,298	1,958	875	30.3	866	45.1	4,468
Central of Georgia.....	1951	1,756	5,232	6,988	2.7	32,970	1,833	872	31.2	1,025	45.6	4,669
	1950	2,576	4,289	6,865	9.6	30,459	1,704	802	29.3	949	43.7	4,034
Gulf, Mobile & Ohio.....	1951	2,971	10,265	13,236	3.4	64,826	3,322	1,593	31.0	1,270	56.5	6,030
	1950	3,975	9,960	13,935	2.6	58,630	2,902	1,333	29.3	1,020	48.8	4,952
Illinois Central.....	1951	22,214	30,308	52,522	1.9	46,109	2,541	1,171	32.9	1,087	51.6	8,856
	1950	21,435	26,755	48,190	3.5	45,507	2,496	1,146	32.5	1,086	52.0	8,349
Louisville & Nashville.....	1951	31,010	17,189	48,199	8.7	38,464	2,403	1,181	36.2	909	39.4	9,137
	1950	33,233	16,064	49,297	10.6	35,229	2,194	1,072	36.1	911	39.9	9,451
Nash., Chatt. & St. Louis.....	1951	1,131	4,550	5,681	3.1	39,420	2,012	950	30.1	1,096	50.1	6,217
	1950	2,022	4,465	6,487	5.3	35,536	1,804	848	28.8	896	41.3	5,884
Seaboard Air Line.....	1951	9,127	16,262	25,389	1.9	45,000	2,483	1,078	30.3	1,128	58.4	6,777
	1950	9,401	13,707	23,108	2.3	40,036	2,277	987	30.1	1,029	52.9	5,860
Southern.....	1951	12,624	27,987	40,611	4.5	37,071	2,177	994	29.0	978	48.1	6,439
	1950	14,504	24,813	39,317	3.5	35,872	2,093	957	29.7	784	38.5	5,221
Chicago & North Western.....	1951	17,184	29,644	46,828	4.3	41,947	2,729	1,253	32.0	737	33.7	4,503
	1950	19,779	31,488	51,267	3.2	41,479	2,622	1,077	29.0	589	31.1	3,767
Chicago Great Western.....	1951	1,099	5,611	6,710	2.7	63,266	3,827	1,760	30.2	1,330	62.0	6,014
	1950	1,529	4,932	6,461	3.0	63,235	3,586	1,569	28.5	1,169	60.1	5,419
Chic., Milw., St. P. & Pac.....	1951	29,754	36,261	66,015	3.1	44,112	2,649	1,222	31.6	728	34.8	4,513
	1950	28,962	30,569	59,531	2.9	41,865	2,521	1,127	30.0	739	37.5	4,148
Chic., St. P., Minn. & Omaha.....	1951	994	7,921	8,915	3.6	28,601	2,044	91	35.0	653	26.9	3,929
	1950	970	7,233	8,203	3.9	26,172	1,893	823	28.1	580	29.1	2,924
Duluth, Missabe & Iron Range.....	1951	13,368	1,726	15,094	2.3	86,816	5,417	3,015	66.6	1,269	37.9	33,868
	1950	13,892	421	14,313	3.2	87,264	5,363	3,273	65.5	1,022	30.4	26,795

A NEW Service to Railroads

- PRESSURE CREOSOTED TREATMENT
- PRESSURE PENTACHLOROPHENOL TREATMENT

Browne

TREATED MATERIALS



POLES TIMBER LUMBER PILING FENCE POSTS

• Treated in our modern, new treating plant at Diboll, Texas. Write or wire for price information.

SOUTHERN PINE LUMBER CO.

MILLS: DIBOLL and PINELAND, TEXAS
SALES OFFICE: TEXARKANA, TEXAS

(Continued from page 98)
division freight agent and general freight agent. In 1950 he became district freight traffic manager at Los Angeles.

MECHANICAL

Edward C. Arkell, supervisor of locomotive fuel, Western region, CANADIAN NATIONAL, has been appointed supervisor of enginemen for the same region, with headquarters at Winnipeg, Man., succeeding **E. P. Duke**, who has retired.

Frederick A. Baldinger, superintendent of motive power, Eastern region, of the BALTIMORE & OHIO, has retired and has been succeeded by **Guy F. Wiles**, assistant to the general superintendent of motive power and equipment. **J. J. Ekin, Jr.**, and **W. F. Dadd** have been appointed assistants to the general superintendent of motive power and equipment, with headquarters at Baltimore.

The position of supervisor fuel and locomotive operation of the ERIE, formerly held by **Frank X. Jones**, has been abolished. Mr. Jones has been appointed supervisor locomotive operation, with headquarters as before at Cleveland. **Clarence C. Church**, district road foreman and fuel supervisor at Marion, Ohio, has retired under the pension rules of the company, after 44 years of service. **Frank L. Van Schaick**, district road foreman and fuel supervisor at Port Jervis, N. Y., has been appointed assistant supervisor locomotive operation, with headquarters at Jersey City, N. J. The position of district road foreman and fuel supervisor has been abolished.

SPECIAL

W. C. Laraway has been appointed supervisor of safety of the DELAWARE & HUDSON, at Albany, N. Y., with jurisdiction over all matters at present assigned to the superintendent of safety. He succeeds the late **M. F. Clune** whose death is reported elsewhere in this issue.

OBITUARY

R. L. Helstrom, district freight agent of the CLINCHFIELD at Chicago, died in that city on August 10.

Frederic Moses Gilbough, 96, retired land and tax commissioner of the MISSOURI-KANSAS-TEXAS, died at his home in Dallas, Tex., August 9. He retired from the Katy in 1946 after more than 55 years of railroading.

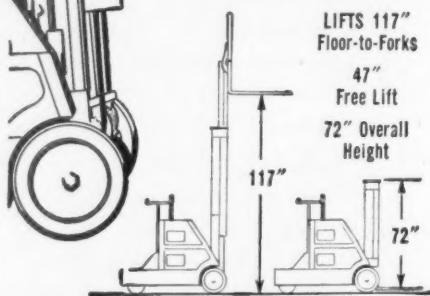
Emil L. Larson, former engineer of car design and maintenance of the CHICAGO, BURLINGTON & QUINCY at Chicago, whose recent death was re-
(Continued on page 105)

**MOBILIZE
YOUR
MATERIALS
HANDLING**

with
MOBILIFT
Lev-R-Matic DRIVE
FORK LIFT TRUCKS

Mobilize your materials handling and production flow with MOBILIFT. . . . Only MOBILIFT gives you Lev-R-Matic, push-pull, easy-to-operate grouped controls with NO GEARS TO SHIFT . . . plus efficient compactness for speed and maneuverability in restricted places.

Get more work done in less time at less cost with MOBILIFT!



**NEW STAND-UP MODEL "E" 2,000-LB.
CAP. TIER-MASTER tiers 3 pallets high
from an overall collapsed height of only
72". It easily enters truck bodies and low
clearance doors.**

* STAND-UP MODELS available with 63", 72" and 83" Mast.

SIT-DOWN MODELS with 63" and 83" Mast.

Grouped 2-Way Levers
Perform All Jobs
PUSH & PULL
NO GEARS TO SHIFT

MOBILIFT
*Lev-R-Matic
DRIVE*

WRITE TODAY for complete information.

MOBILIFT
CORPORATION

835 S. E. MAIN ST., PORTLAND 14, ORE.
CHICAGO • E. RUTHERFORD, N. J.
DALLAS • ATLANTA • BERKELEY



... SHOWS YOU HOW ACCURATE RECORDS

LENGTHEN BATTERY SERVICE!

Keeping of accurate records is vital to the conservation and extension of essential battery power. The GOULD PLUS-PERFORMANCE PLAN makes the keeping of battery records easy by providing you with full information on how to test your batteries, and charts and forms for recording test data.

This timely plan puts at your disposal a complete system of manuals, articles, specifications, bulletins, charts, graphs and forms explaining and illustrating how to select, charge and handle, maintain and determine the condition of your batteries. This material, which can increase battery service as much as 50%, is FREE to battery users, without obligation. A request on your letterhead will bring descriptive booklet by return mail.



DAILY RECORD SYSTEM CONTROLS BATTERY MAINTENANCE

Keep a diesel battery and voltage regulator inspection card (like that illustrated below—they're FREE on request) in a holder on each locomotive unit. Identify each battery by serial number and if battery is transferred to another locomotive unit, transfer its record card also. Record pilot cell readings daily. If there is a constant drop of specific gravity, voltage regulator setting should be increased. If there is ex-

cessive temperature or water consumption, setting should be decreased. Record regulator settings, and date changes were made. Monthly inspections should be made and all pertinent data recorded. When inspection card is filled, a new one should be made out and all pertinent data including readings from last inspection, recorded on it. The old card should then be placed in a file.



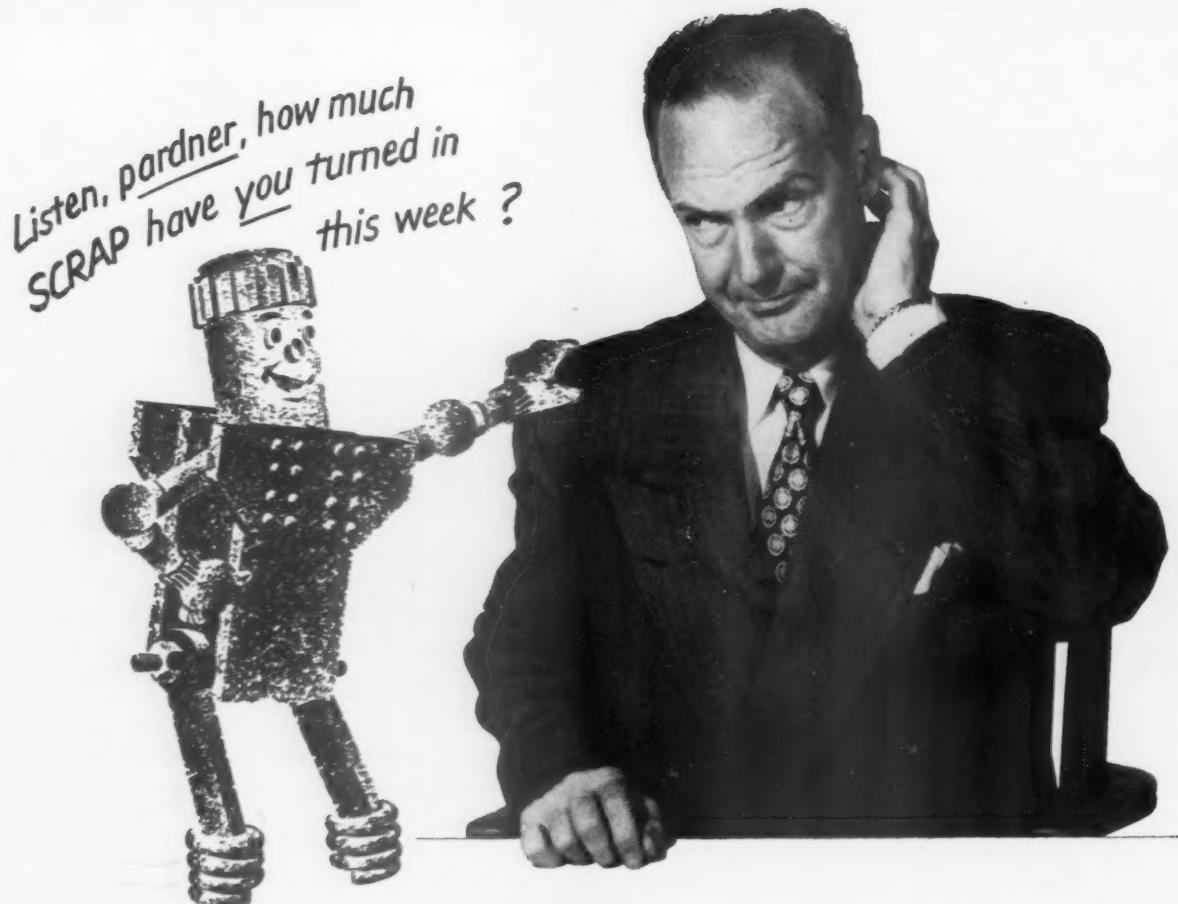
**GOULD "Z"
PLATE
BATTERIES**
America's Finest
Diesel
Starting Batteries

GOLD

STORAGE BATTERIES

GOULD-NATIONAL BATTERIES, INC. TRENTON 7, NEW JERSEY

Always Use Gould-National Automobile and Truck Batteries



Today, the steel business is your business — it needs all your SCRAP, Now!

SUPPOSE that every steel user were suddenly told that he had to turn in a half-ton of scrap before he could get a ton of steel. It would start the most gosh-almighty treasure hunt for scrap that ever happened.

In effect, this "no-scrap, no-steel" situation virtually exists. For without *all* the scrap that industry can search out and start on its way to the mills, steel production will surely drop. It's as serious as that.

More scrap is urgently needed. Today the mills are turning out more steel than ever before. But they're scraping the bottom of the barrel as far as scrap is concerned. Defense and domestic demands for steel simply

cannot be met unless at least 100,000 tons of "purchased" scrap roll into the furnaces—*every day*.

The bulk of this scrap must come from industry. That's why we're asking for your all-out help. That's why it's so important that you make the drive for scrap part of your daily operations. Make it your business to encourage every employee to report any obsolete, broken or worn-out machinery, tool or equipment that has seen its day. From this dormant "junk" must come the heavy melting scrap that the mills need most. Don't let your scrap lie idle; send it on its way. How about it, pardner?

You'll find your local scrap dealers listed in the yellow pages of the phone directory.



1-1326

UNITED STATES STEEL

This page would ordinarily be used to tell you about
**AMERICAN
ELECTRICAL WIRE AND CABLES**
but, because without SCRAP we cannot produce steel,
we are asking instead for your all-out help in getting
more SCRAP to the mills.

AMERICAN STEEL & WIRE COMPANY, GENERAL OFFICES: CLEVELAND, OHIO
COLUMBIA STEEL COMPANY, SAN FRANCISCO, PACIFIC COAST DISTRIBUTORS
TENNESSEE COAL, IRON & RAILROAD COMPANY, BIRMINGHAM, SOUTHERN DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

(Continued from page 102)

ported in the August 27 *Railway Age*, left the service of that road in February 1951, not in 1949, as was incorrectly stated on page 66 of that issue.

T. W. Bockes, Western general counsel of the UNION PACIFIC, at Omaha, died recently in that city of a heart disease. Mr. Bockes was born at Central City, Neb., March 20, 1885, received his bachelor of laws degree from the University of Nebraska in 1908, and later was associated with a Lincoln (Neb.) law firm for three years prior to joining the U.P. at Cen-



T. W. Bockes

tral City as local attorney. Advanced to assistant general attorney in 1918 at Omaha, in 1933 he became general attorney for Nebraska, and three years later was appointed assistant Western general counsel. Subsequently he served as general solicitor until 1942, when he was promoted to Western general counsel.

Paul D. Freer, 81, who retired on January 1, 1946, as freight traffic manager of the BALTIMORE & OHIO at Baltimore, died on August 24, after a long illness.

Leonard Schultze, 73, architect who designed and supervised construction of Grand Central Terminal in New York, died on August 25 at White Plains Hospital, White Plains, N. Y. Mr. Schultze was employed in 1903 as chief of design for Grand Central and its attendant structures by the architects of the buildings, and in 1911 became executive in charge of design and construction of all buildings relating to the terminal. Among those built under his direction were the terminal itself, the general office building for the New York Central System, and several hotels and other structures in the vicinity. At the time of his death, Mr. Schultze was senior member of the firm of Leonard Schultze & Associates, New York.

M. F. Clune, superintendent of safety of the DELAWARE & HUDSON at Albany, N. Y., died recently.

ONLY EIGHT!

Only 8 good wood doors required to cover a car! This fact has been proved in separate tests conducted by both the Eastern and the Western Weighing and Inspection Bureaus! Details of these tests will be furnished you upon request. This is an important fact in the railroads' economy programs!

"Mummert Makes Good Grain Doors"

THE **MUMMERT** CO.
PROGRESO, TEXAS

MUMMERT

KRANE KAR Can Do This Job
Because It Can SWING the Hook over the Load

Non-Swing-Boom Cranes Cannot

In tight quarters, KRANE KAR will travel in narrow aisles, on narrow aprons between the tracks, transporting and swinging loads to either side as required.

Every day, all day long, KRANE KARs speed Railroad work . . . carloading, in shops, stores, at rip tracks . . . handling materials more safely, at great savings of time and money. We'll be glad to help you select the model that will serve you most economically. Let our sales-engineer survey your requirements . . . no obligation. Write for Bull. No. 79.

Gas or Diesel, 9 to 37 ft. booms or adjustable telescopic booms; pneumatic or solid rubber tires. Ask about the NEW Dual-Seat, Dual-Control Transport Trailer—cuts handling time 30%.

AGENTS IN ALL PRINCIPAL CITIES

SILENT HOIST & CRANE CO., 847 63rd ST., BROOKLYN 20, N.Y.

RAILROADS DEPEND ON JUSTRITE!

DUAL PURPOSE CAR INSPECTOR'S LANTERN!

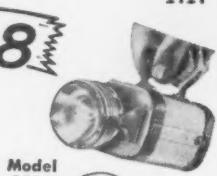
Two separate lens housings with spread beam honeycomb or spot beam lights. For all inspection uses. Separate switches. Uses either 6-volt lantern or 8 standard flashlight batteries. Heavy duty, rust-proof construction. Only \$6.95 less batteries.



Model 2121

Yellow-Flash-8

Most powerful flashlight made. Uses 8 flashlight batteries or 6-volt lantern battery. Only 8" overall. Lightweight. Strong, rugged, simple to operate. Only \$3.95 less batteries.



Model 2108



Model 1958

JUSTRITE
MANUFACTURING CO.

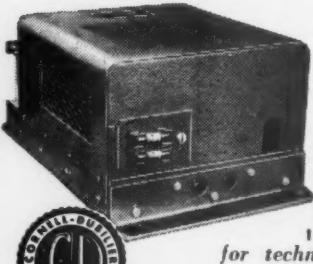
FREE CATALOG
Write Dept. RA

2061 N. Southport
CHICAGO 14, ILL.

SEABOARD REPORTS:

"DEPENDABLE PERFORMANCE FROM THE C-D VIBRATOR CONVERTER"

"The Cornell-Dubilier vibrator converter, with its dual vibrator arrangement consisting of one active and one standby replacement vibrator with automatic switching, has, to date, given dependable performance in yard radio-telephone service on the Seaboard Air Line Railroad."



Patented C-D dual-vibrator circuit assures uninterrupted radio communications en route, plus major savings on initial installation and maintenance. Write for technical data: Cornell-Dubilier Electric Corp., Dept. RA-911 Indianapolis Division, 2900 Columbia Avenue, Indianapolis, Ind.

Affiliate Member A.A.R.

CONSISTENTLY
CORNELL-DUBILIER
DEPENDABLE
VIBRATOR CONVERTERS with Railroad Dependability

PLANTS IN SOUTH PLAINFIELD, N. J.; NEW BEDFORD, WORCESTER, AND CAMBRIDGE, MASS.; PROVIDENCE, R. I.; INDIANAPOLIS, IND.; FUQUAY SPRINGS, N. C.; AND SUBSIDIARY, THE RADIART CORP., CLEVELAND, OHIO

WHY RISK ...

... TODAY'S
HIGH
PRICED
LADING?

PEERLESS H-I-B2
A/R 1941 PATENTED

...use PEERLESS
PROTECTION, the
H-I-B2 your best in-
surance against loss!

PEERLESS EQUIPMENT COMPANY
332 SOUTH MICHIGAN AVENUE • • • CHICAGO 4, ILLINOIS

NOW! Get the Book That Protects the Money You Invest in Diesels

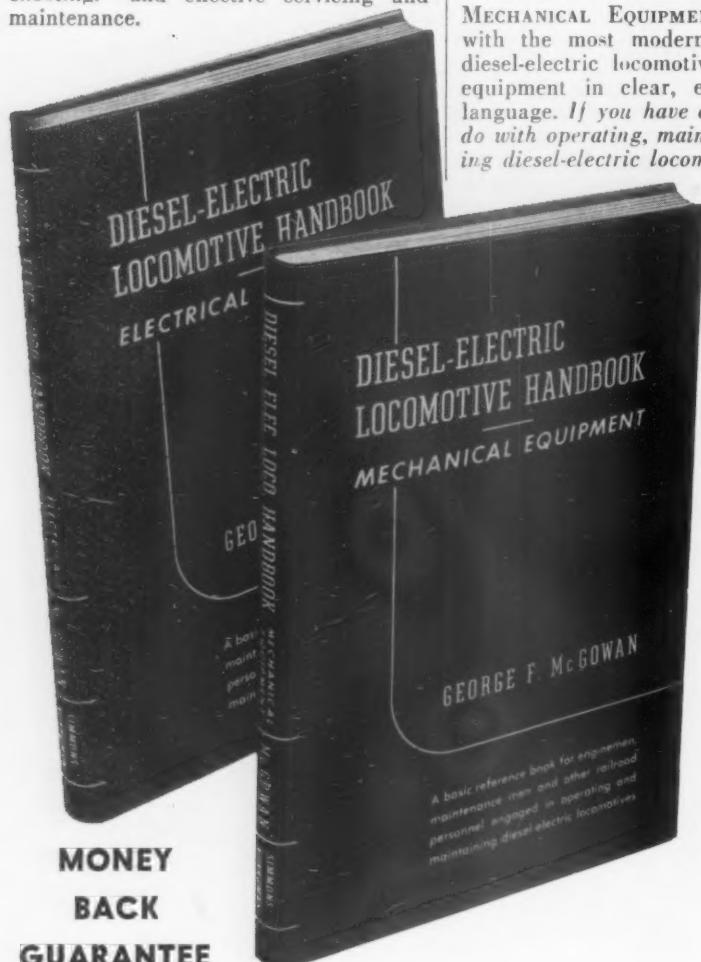
DIESEL-ELECTRIC LOCOMOTIVE HANDBOOK

By GEORGE F. McGOWAN, Technical Consultant

SEND TODAY for this great new book! Packed with photos and diagrams, it brings you up-to-the-minute facts—the latest available on diesel-electric locomotives and equipment. Here is everything you need and want to know—written from the viewpoints of the men in the cab and the shop—by an experienced railroad man—all checked and approved by the leading locomotive builders. For your convenience this handbook is sold separately in two volumes: Mechanical Equipment and Electrical Equipment. Read the descriptions that follow and you'll agree: Here is essential information you cannot afford to be without!

MECHANICAL EQUIPMENT

Everything necessary to complete understanding of diesel-electric locomotives is included—how diesel-electric locomotives are constructed, the reasons behind their design, proper operating methods, things that can go wrong with them, "troubleshooting," and effective servicing and maintenance.



MONEY
BACK
GUARANTEE

GIVES YOU DETAILS OF EACH PART

Among the chapters are: The Development of the Diesel-Electric Locomotive; Fundamentals; Lubricating and Cooling; Fuel Systems—Fuel; Pistons, Piston Rings, Liners; Connecting Rods, Bearings, Crankshafts; Valves, Timing, Heads; Governors; The Steam Generator; The Air Compressor; and The Gas Turbine Locomotive.

DESCRIBES LOCOMOTIVES BY MAKE

Separate chapters are devoted to accounts of diesel engines made by The American Locomotive Company, Baldwin Locomotive Company, Electro-Motive Diesel, Fairbanks, Morse & Company, and Lima-Hamilton Corporation. Each engine, its parts, and its non-electrical auxiliaries are described and illustrated in full detail.

SOLVES JOB PROBLEMS FOR YOU

MECHANICAL EQUIPMENT provides you with the most modern information on diesel-electric locomotives and auxiliary equipment in clear, easy-to-understand language. If you have anything at all to do with operating, maintaining or servicing diesel-electric locomotives, you'll use

this book as a handbook to help you solve problems that you meet in your daily work, and as a reference to keep you on top of developments in this expanding field.

ELECTRICAL EQUIPMENT

You get full descriptions of all major pieces of electrical equipment and all their parts: how they are constructed, how to operate them, how to take care of them and how to fix them if they go wrong.

There are chapters on: The Electric Generator; The Traction Motor; Exciters, Auxiliary Generators, Motor Blowers, Dynamic Braking; Batteries; and Contactors.

DETAILS EQUIPMENT BY MAKE

The electrical and control equipment of the major builders: Alco-G.E., Electro-Motive Division, Lima-Westinghouse, Baldwin-Westinghouse, and Fairbanks, Morse-Westinghouse is completely analyzed in individual chapters.

You need only a layman's knowledge of electricity to gain the utmost benefit from this book—because the subject is presented in practical language by an experienced railroad engineer.

ANALYZES ELECTRICAL SET-UP

You learn why the electrical transmission has been adapted to the diesel locomotive; its advantages, disadvantages and limitations. You get a review of electrical fundamentals; definitions of terms and explanations of how to use the most common electrical formulas. Schematic wiring diagrams are explained and their special symbols identified.

EXPLAINS OPERATION, SERVICING, MAINTENANCE

Yes, here is your opportunity to gain a complete understanding of the electrical equipment of today's diesel-electric locomotives, to learn how to handle, service and maintain the equipment.

GUARANTEED ORDER FORM

Simmons-Boardman Books
30 Church St., New York 7, N. Y.

Enclosed find for the book(s) checked below. I understand that you will ship them to me postpaid, and that if I am not completely satisfied I may return them any time within 10 days of receipt for a full refund of my money.

MECHANICAL
EQUIPMENT, \$4.95

ELECTRICAL
EQUIPMENT, \$4.95

COMBINATION OFFER—SAVE MONEY

Both volumes above, only \$9.45

Name
Street
City State
9-3-51

CLASSIFIED DEPARTMENT

RAILROAD EQUIPMENT—FOR SALE

STANDARD GAUGE FREIGHT CARS

Box, Single Sheathed, 50-Ton
Caboozes, 8-Wheel, Cupola Type
Flats, 50-Ton, Steel Underframe, 40' 0"
Gondolas, Composite or All-Steel, 50 & 70-Ton

Hoppers, Covered, All-Steel, 50 & 70-Ton
Hoppers, Twin, All-Steel, 50-Ton, Cross Dump
Hoppers, All-Steel, 70-Ton, Cross Dump
Tank, 8,000-Gallon, Class 11

EXTRA LONG FLAT CARS

40- & 50-Ton Capacity, Length 70' and 74'

STANDARD GAUGE DUMP CARS

End Dump, 10-Yd., 30-Ton, Lift Door
End Dump, 20-Yd., 50-Ton, Drop Door

Side Dump, 16-Yd., 30-Ton, Lift Door
Side Dump, 20-Yd., 40-Ton, Lift Door

STANDARD GAUGE LOCOMOTIVES

One 50-Ton, H. K. Porter, Saddle Tank, 0-4-0, Oil-Fired, Steam, Built 1942
Gasoline—10-Ton to 25-Ton
Diesel-Mechanical—8-Ton to 30-Ton
One Plymouth Model KC Flexomotive 65-Ton, Standard Gauge, Type 0-6-0, Built 1940

Gasoline-Electric—35-Ton
Propane-Electric—70-Ton

PASSENGER EQUIPMENT

All types of Passenger & Baggage Equipment, including Self-Propelled!

4 ALL-STEEL DINING CARS, AIR-CONDITIONED

Send us your Inquiries
We Buy Freight Cars for Dismantling
Send us your offerings

REPAIR PARTS
For
All Types of
Freight Cars

IRON & STEEL PRODUCTS, INC.

GENERAL OFFICE
13486 S. Brainard Ave., Chicago 33, Illinois
Phone: BAyport 1-3456
"ANYTHING containing IRON or STEEL"

STORAGE TANKS
6,000 Gallon
8,000 Gallon
10,000 Gallon

**Educational Services
for
RAILROAD MEN**

Our New Service
on
Diesel Locomotive
Operation
is highly recommended
for
Engineers and Firemen

The Railway
Educational Bureau
Omaha 2, Nebraska

FOR SALE
BURRO #10 Gasoline Crane,
Std. Ga., 30' Boom, 2½ Ton
Capacity. Ready for Immediate
Operation.
R. H. BOYER
2005-13 W. Bellevue St.,
Philadelphia 40, Pa.
Tel. SA 2-7132

Representatives Wanted
Several territories open to handle
oil filter cartridges. Must have
contacts in the mechanical and
purchasing departments of rail-
roads. Liberal commission. State
full particulars, lines carried, ter-
ritories covered, etc., Confidences
respected.
Address Box 604, RAILWAY AGE,
30 Church St., New York 7, N. Y.

WILL TRADE
70 year old Photo Studio, Camera
Store, and Real Estate (clear
value about \$20,000) for short
line or branch railroad. Address
Box 605, RAILWAY AGE, 30
Church St., New York 7, N. Y.

TRACKMAN CREW
Working on railroads for 20
years. With cook and equipment
looking for work anywhere. High-
est references. Mancuso, 2553
Mickel Ave., Bronx 69, New
York.

**BUY
BONDS**

IMMEDIATE DELIVERY

10—BOX CARS—40 Ton
Cap.—40 ft. lg. Thor-
oughly repaired.
Have your R. R. Equipment
repaired in our Modern well
equipped Shop & Yard by
experienced personnel.

RAIL & IND. EQUIP. CO.
30 Church St., N. Y. C.

New RAILS Relaying
Most all sections in stock, to-
gether with angle bars, tie plates,
frogs and switches.

M. K. FRANK
420 Lexington Ave., New York, N.Y.
Park Building, Pittsburgh, Penna.
105 Lake Street, Reno, Nevada

**USED EQUIPMENT
TO SELL?
ADVERTISE IT IN THE
CLASSIFIED DEPARTMENT**

Advertisers

IN THIS ISSUE

The information contained in the advertising pages of Railway Age constitutes an important supplement to the editorial content of this paper. Refer to them for the latest advances in equipment, materials and supplies.

A	General Steel Castings 2
American Brake Shoe Company, National Bearing Division 99	Gould-National Batteries, Inc. 103
American Car & Foundry Company 92, 93	
American Locomotive Company 28, 29	H
American Steel Foundries 31	Hulson Co. 21
American Steel & Wire Company 104	Hyman-Michaels Company 89
Association of American Railroads 84	Hyster Company 22
Atlantic Coast Line Railroad 71	
Automatic Electric Sales Corporation 4	I
	International Steel Company 9
B	Iron & Steel Products, Inc. 109
Baltimore & Ohio Railroad 75	
Bethlehem Steel Company 14	J
Boyer, R. H. 109	Justrite Mfg. Company 106
C	K
Canadian Cardwell Co., Ltd. 32	Kansas City Southern Lines 67
Cardwell Westinghouse Co. 32	Koppers Company, Inc. 30
Caterpillar Tractor Co. 15	
Chesapeake and Ohio Railway 73	L
Chicago, Indianapolis and Louisville Railway Company 81	Lackawanna Railroad 64
Classified Department 199	
Columbia Steel Company 104	M
Cornell-Dubilier Electric Corp. 106	Magnus Metal Corporation, Subsidiary of National Lead Company 34
	Mancuso 109
D	McDougall-Butler Co., Inc. 89
Dearborn Chemical Company 19	Met-L-Wood Corporation 18
Dow Chemical Company, The 27	Milwaukee Road, The 72
du Pont de Nemours & Co., (Inc.) E. I. 111	Miner, Inc., W. H. 3
	Minneapolis & St. Louis Railway, The 69
E	Missouri-Kansas-Texas Railroad 89
Eastman Kodak Company 97	Missouri Pacific Lines 63
Electric Storage Battery Company, The 17	Mobilift Corporation 102
Electro-Motive Division, General Motors Corporation Back Cover	Monon Line 81
Erie Railroad 85	Mummert Co., The 105
Evans Products Company 10	
F	N
Fairbanks, Morse & Co. 11	National Bearing Division, American Brake Shoe Company 99
Frank, M. K. 109	National Malleable and Steel Castings Company 12, 13
G	O
General Electric Company 28, 29	Orton Crane and Shovel Co. 98
	Oxweld Railroad Service Company, Union Carbide and Carbon Company 20
P	
	R
	Peerless Equipment Company 107
	Pressed Steel Car Company, Inc. 25
	S
	Santa Fe System Lines 86
	Scullin Steel Co. 23
	Seaboard Air Line Railroad 78
	Silent Hoist & Crane Co. 106
	Simmons-Boardman Publishing Company 108
	Soo Line 79
	Southern Pine Lumber Co. 102
	Southern Railway System 76
	Standard Car Truck Company 24
	Standard Manifold Company 89
	T
	Tennessee Coal, Iron & Railroad Company 104
	Texas and Pacific Railway 83
	Towmotor Corporation 95
	Tynan, M. L. 88
	U
	Union Carbide and Carbon Corpora- tion, Oxweld Railroad Service Company 20
	Union Pacific Railroad 87
	Union Switch & Signal Company 6
	United States Steel Export Company 104
	W
	Waugh Equipment Company 94
	Westinghouse Air Brake Co. 91
	Whiting Corporation 16
	Y
	Yale & Towne Manufacturing Com- pany 33
	Youngstown Sheet and Tube Com- pany 26
	Youngstown Steel Door Company Front Cover

**STEEL in stock at
RYERSON**

Every kind of steel is in stock for quick shipment though many sizes are often missing due to the heavy demand. Joseph T. Ryerson & Son, Inc. Plants: Chicago, Milwaukee, St. Louis, Cincinnati, Detroit, Cleveland, Buffalo, Boston, Philadelphia, Jersey City, Pittsburgh, Los Angeles, San Francisco.
BARS—carbon & alloy, hot rolled & cold finished
STRUCTURALS—channels, angles, beams, etc.
PLATES—sheared & U. M., Inland 4-Way Floor Plate
SHEETS—hot & cold rolled, many types and coatings
TUBING—boiler & mechanical, seamless & welded
STAINLESS—Allegheny plates, sheets, bars, tubes